Exhibit 12 Part 18

Part 9 of Attachment L to the Allocation Recommendation Report (ARR2760-ARR2845)

United States' Motion to Enter Consent Decree, United States v. Alden Leeds, Inc. et al., Civil Action No. 22-7326 (D.N.J.) Case 2:22-cv-07326-MCA-LDW Document 289-17 Filed 01/31/24 Page 2 of 87 PageID: 7592

Allocation Facility Cmass Calculation

Sequa Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	C%	Transport					C/c		Ciliass		
Copper	100.00%	-	100.00%	-	0.00%	749.03	100.00%	-	0	1.018817E-2	0
Lead	100.00%	-	100.00%	-	0.00%	32,522.45	100.00%	-	0	1.018817E-2	0
Mercury	100.00%	-	100.00%	-	0.00%	98.61	100.00%	-	0	1.018817E-2	0
HPAHs	100.00%	-	100.00%	-	0.00%	2,331.46	100.00%	-	0	1.018817E-2	0
LPAHs	100.00%	-	100.00%	-	0.00%	1,554.30	100.00%	-	0	1.018817E-2	0
PCBs	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
DDx	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0

Sequa Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	0	0	0
Lead	0.01	3,200,000.00	0	0	0
Mercury	0.95	42,000.00	0	0	0
HPAHs	0.05	240,000.00	0	0	0
LPAHs	0.01	170,000.00	0	0	0
PCBs	12.87	26,000.00	0	0	0
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

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Allocation Facility COC Base Scores - Alternative Calulcation

Sequa Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	0	0	0	0	0
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	0	0	0	0	0
Mercury	0.95	42,000.00	4,322.53	41,955.96	0	0	0	0	0
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	0	0	0	0	0
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	0	0	0	0	0
PCBs	12.87	26,000.00	20,066.54	25,795.56	0	0	0	0	0
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

Sequa Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

07105

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Newark Bay	Bypass	0.00%	0.00%	Did not discharge waste into the Passaic river

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
43,743 42		All wastewater and stormwater discharged to strip drains in complex connected to industrial sewer
5		
52	#weeks/yr discharged	
11,373,206		
	discharge(PAS00111828,PAS00128843,PAP00374662,PAS00000682,PAS000 14611,PAP00049170,PAP00120043,PAS00044688,PAS00104294)	
	Yr Ops started	
	Yr Ops ceased calc #yrs facility operated (PAS00000242)	
	The state of the s	
Copper (Cu)		
0.87	#yrs facility discharged calc mg/L COC discharged (PAP00049166, PAS00000682, PAP00049170,	1976 Waste Effluent Survey (.16mg/l); 1975 PVSC Ind WWQ, dated 1978 (.16 mg/l); 1979 PVSC Sewer Connection
0.07	PAS00104294)	App, dated 1980 (.16mg/l); and 1986 Ind Pretreatment Program Annual Report (3.0mg/l)
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index) calc kg COC discharged	
Lead (Pb)	calcing COC discharged	
20	#yrs facility discharged	
37.78	calc mg/L COC discharged (PAP00049166, PAS00000682, PAP00049170, PAS00104294)	1976 Waste Effluent Survey (.1mg/l); 1975 PVSC Ind WWQ, dated 1978 (.1 mg/l); 1979 PVSC Sewer Connection App, dated 1980 (.9mg/l); and 1986 Ind Pretreatment Program Annual Report (150mg/l)
3.785	L per gallon (Merck Index)	App, dated 1960 (.9mg/r), and 1960 ind Fredeathent Frogram Annual Report (1901mg/r)
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Mercury (Hg)	#yrs facility discharged	
	calc mg/L COC discharged (PAP00049166, PAS00000682, PAP00049170,	1976 Waste Effluent Survey (.06mg/l); 1975 PVSC Ind WWQ, dated 1978 (.06mg/l); 1979 PVSC Sewer Connection
	PAS00044688, PAS00104294)	App, dated 1980 (.002mg/l); 1985 Permit Application (.0007mg/l); and 1986 Ind Pretreatment Program Annual
3 705	L per gallon (Merck Index)	Report (.45mg/l)
	kg per mg (Merck Index)	
98.61	calc kg COC discharged	
HPAHs	H. un facility discharged	
20 45.13	#yrs facility discharged calc mg/L O&G (PAP00049166, PAP00049170, PAS00044688)	calcs used to convert mg/kg O&G to HPAHs; remove if not needed
10%		1976 Waste Effluent Survey (6.0 mg/l Oils); 1979 PVSC Sewer Connection Permit, dated 1980 (35 mg/l Oils); and
		1985 Permit Application (94.4 mg/l Oils)
	% PAHs considered as HPAHs calc mg/L HPAHs	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
LPAHs 20	#yrs facility discharged	
	calc mg/L O&G (PAP00049166, PAP00049170, PAS00044688)	calcs used to convert mg/kg O&G to LPAHs; remove if not needed
10%	% O&G that is considered PAHs	1976 Waste Effluent Survey (6.0 mg/l Oils); 1979 PVSC Sewer Connection Permit, dated 1980 (35 mg/l Oils); and
409/	% PAHs considered as LPAHs	1985 Permit Application (94.4 mg/l Oils)
	calc mg/L LPAHs	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
PCBs	calc kg COC discharged	
	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
DDx		
6	#yrs facility discharged within DDx Timeline	
3.785	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Problem	calc kg COC discharged	
Dieldrin 21	#yrs facility discharged within Dieldrin Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
Dioxins/Furans	core ng core discharged	
20		
3.785	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	I GOTO POLICIA DE CARTO	
21	#yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
- Dioxin/Furan Precursor - 2,4,5-T	calc kg COC discharged	
	#yrs facility discharged within 2,4,5-T Timeline	
-	calc mg/L COC discharged	
3.785		
0.000001	kg per mg (Merck Index) calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP		
	#yrs facility discharged within 2,4,6-TCP Timeline	
3.785	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001		
-	calc kg COC discharged	
Summary DMassCOC for POTW:	T	
	kg Copper	
32,522.45	kg Lead	
	kg Mercury kg HPAHs	
	kg LPAHs	
-	kg PCBs	
-	kg DDx kg Dieldrin	
-	INE DISTOLLI	•

sequa Corporation DMass formatted for report 1 ARR2764 POTW_PVSC

- kg Dioxins/Furans

Segua Corporation DMass formatted for report 2 ARR2765 POTW_PVSC

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

Protocol Calculation

Sequa Corporation (Foundry Street Complex)

185 Foundr	y Stree	et	Newark	NJ	07105				
Facility BS	CUF	CUF_Catego	ry		C	UF_NOTES	COF	COF_NOTES	Facility Adjusted BS
0	0.0%	Historically Compliant or	fi e o	rom the site. A tot exterior areas, whi of PCB-impacted so	al of 1,400 cubic yards o ch were generally excava	remove PCB contaminated soils and groundwater f PCB-impacted soils were removed from accessible ted to a depth of two feet. A total of 165 cubic yards he former Boiler Room floor (PAP- 00124050). No available file material.		-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	0
								AP_ABS	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

Sequa Corporation (Foundry Street Complex)

185 Foundr	y Stree	et	Newark	NJ	07105				
Facility BS	CUF	CUF_Catego	ry		(CUF_NOTES	COF	COF_NOTES	Facility Adjusted BS
0	0.0%	Historically Compliant or	1	from the site. A to exterior areas, wh of PCB-impacted s	otal of 1,400 cubic yards of the color of th	o remove PCB contaminated soils and groundwater of PCB-impacted soils were removed from accessible ated to a depth of two feet. A total of 165 cubic yards the former Boiler Room floor (PAP- 00124050). No available file material.		-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	0
								AP_ABS	0

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Allocation Facility Cmass Calculation

Seton Company, Inc. (Seton Tanning)

349 Oraton Street, Newark, NJ 07104 Newark 849 Broadway, Newark, NJ 07104 62 Verona Ave, Newark, NJ 07104

07104 NJ

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	C%	Transport									
Copper	100.00%	-	100.00%	5,700.12	8.23%	25,967.21	100.00%	-	7,836.08	1.018817E-2	79.84
Lead	100.00%	-	100.00%	13,999.24	8.23%	63,774.30	100.00%	-	19,245.05	1.018817E-2	196.07
Mercury	100.00%	-	100.00%	115.99	8.23%	528.40	100.00%	-	159.46	1.018817E-2	1.62
HPAHs	100.00%	-	100.00%	84,067.73	8.23%	382,975.19	100.00%	-	115,569.7	1.018817E-2	1,177.44
LPAHs	100.00%	-	100.00%	56,045.15	8.23%	255,316.78	100.00%	-	77,046.46	1.018817E-2	784.96
PCBs	100.00%	-	100.00%	-	8.23%	-	100.00%	-	0	1.018817E-2	0
DDx	100.00%	-	100.00%	-	8.23%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	8.23%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	8.23%	-	100.00%	-	0	1.018817E-2	0

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Allocation Facility COC Base Scores - Protocol Calculation

Seton Company, Inc. (Seton Tanning)

349 Oraton Street, Newark, NJ 07104 Newark 849 Broadway, Newark, NJ 07104 62 Verona Ave, Newark, NJ 07104

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	79.84	3.802E-5	2.623E-5
Lead	0.01	3,200,000.00	196.07	6.127E-5	6.127E-7
Mercury	0.95	42,000.00	1.62	3.868E-5	3.675E-5
HPAHs	0.05	240,000.00	1,177.44	4.906E-3	2.453E-4
LPAHs	0.01	170,000.00	784.96	4.617E-3	4.617E-5
PCBs	12.87	26,000.00	0	0	0
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Alternative Calulcation

Seton Company, Inc. (Seton Tanning)

349 Oraton Street, Newark, NJ 07104 Newark 849 Broadway, Newark, NJ 07104 62 Verona Ave, Newark, NJ 07104

07104 NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	2.829E-2	79.84	59,335.76	2.829E-2	1.952E-2
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	6.669E-2	196.07	213,209.75	6.669E-2	6.669E-4
Mercury	0.95	42,000.00	4,322.53	41,955.96	3.689E-2	1.62	1,547.72	3.689E-2	3.504E-2
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	2.659E-2	1,177.44	5,204.11	2.659E-2	1.329E-3
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	2.557E-2	784.96	3,562.4	2.557E-2	2.557E-4
PCBs	12.87	26,000.00	20,066.54	25,795.56	0	0	0	0	0
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022) Case 2:22-cv-07326-MCA-LDW Document 289-17 Filed 01/31/24 Page 13 of 87 PageID: 7603

Facility Bypass Information

Seton Company, Inc. (Seton Tanning)	349 Oraton Street, Newark, NJ 07104	Newark	NJ	07104
	849 Broadway, Newark, NJ 07104			
	62 Verona Ave, Newark, NJ 07104			

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Verona Ave	CSO	1.27%	21.70%	
2	Verona Ave	Bypass	7.95%	100.00%	

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	Documentation only shows discharge to PVSC
	# hours/per day discharged	Three contiguous properties at 349 Oraton St, 62 Verona Ave and 849 Broadway
	#days/week discharged	1975 Waste Effluent Survey - 93100000 gallons wastewater to sanitary (1974)
52 88,441,160	#weeks/yr discharged calc gal/yr discharge PAS00102300, 304, 305; PAS 00102292,93	1975 waste effluent sample = 661568 gpd 1979 PVSC Sewer Connection App = 810660 + 19392 gpd
88,441,180	calc gal/yr discharge PA500102500, 504, 505, PA5 00102292,95	1979 PVSC Sewer Connection App = 810660 + 19592 gpd
1906	Yr Ops started	
	Yr Ops ceased	
100		
Copper (Cu)		
	#yrs facility discharged	1975 Waste Effluent Sample
0.946		1979 PVSC Sewer Connection Application
3.785		
	kg per mg (Merck Index) calc kg COC discharged	
Lead (Pb)	calcing coc discharged	
	#yrs facility discharged	1975 Waste Effluent Sample
2.32	calc mg/L COC discharged PAS00102292, 93 & PAS00102304,305	1979 PVSC Sewer Connection Application
	L per gallon (Merck Index)	
0.000001		
	calc kg COC discharged	
Mercury (Hg)		
0.0193	#yrs facility discharged	1975 Waste Effluent Sample
3.785		1979 PVSC Sewer Connection Application
0.000001		
	calc kg COC discharged	
HPAHs		
100	#yrs facility discharged	1975 Waste Effluent Sample
232.53	calc mg/L O&G PAS00102292, 93 & PAS00102304,305	1979 PVSC Sewer Connection Application
	% O&G that is considered PAHs	
60%		
14 3.785		
0.000001		
467,042.91		
LPAHs		
	#yrs facility discharged	1975 Waste Effluent Sample
	calc mg/L O&G PAS00102292, 93 & PAS00102304,305	1979 PVSC Sewer Connection Application
	% O&G that is considered PAHs	
	% PAHs considered as LPAHs	
	calc mg/L LPAHs	
3.785 0.000001		
	calc kg COC discharged	
PCBs	care kg coe discharged	
	#yrs facility discharged within PCBs Timeline	
=	calc mg/L COC discharged	
3.785		
0.000001		
-	calc kg COC discharged	
DDx		
	#yrs facility discharged within DDx Timeline calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001		
-	calc kg COC discharged	
Dieldrin		
38	#yrs facility discharged within Dieldrin Timeline	
-		
	calc mg/L COC discharged	
	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
0.000001	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001 - Dioxins/Furans	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
0.000001 - Dioxins/Furans	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
0.00001 - Dioxins/Furans 100	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged	
0.00001 - Dioxins/Furans 100 - 3.785 0.00001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
0.00001 - Dioxins/Furans 100 - 3.785 0.00001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged dyrs facility discharged calc mg/L COC discharged L per gallon (Merck Index)	
0.00001 - Dioxins/Furans 100 - 3.785 0.000001 - Dioxin/Furan Precursor - 2,4-D	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
0.000001 - Dioxins/Furans	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged #yrs facility discharged within 2,4-D Timeline	
0.00001 - Dioxins/Furans 100 - 3.785 0.000001 - Dioxin/Furan Precursor - 2,4-D 61	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged #yrs facility discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
0.00001 - Dioxins/Furans 100 - 3.785 0.00001 - Dioxin/Furan Precursor - 2,4-D	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) elac kg COC discharged #yrs facility discharged discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index)	
0.00001 - Dioxins/Furans 100 - 3.785 0.000001 - Dioxin/Furan Precursor - 2,4-D 61	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) elac kg COC discharged #yrs facility discharged discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index)	
0.00001 - Dioxins/Furans 100 - 3.785 0.00001 - Dioxin/Furan Precursor - 2,4-D	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged tyrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index)	
0.000001 - Dioxins/Furans - 100 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 1000001 - 1000001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,5-T Timeline	
0.00001 - Dioxins/Furans	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged	
0.000001 - Dioxins/Furans - 100 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 41 - 3.785	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged dyrs facility discharged within 2,4-D Timelline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged dyrs facility discharged #yrs facility discharged dyrs facility discharged #yrs facility discharged #yrs facility discharged L per gallon (Merck Index) L per gallon (Merck Index)	
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0.000001 - Dioxins/Furans - 100 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 41	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timelline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,5-T Timelline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timelline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged #yr	
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0.000001 - Dioxins/Furans 100 - 3.785 - 0.000001 - 100 - 3.785 - 0.000001 - 100 - 3.785 - 0.000001 - 100 - 1	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged kg per mg (Merck Index) calc kg COC discharged kg Copper kg Lead kg Mercury kg HPAHs kg HPAHs	
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Seton Oraton-Verona-Broadway DMass formatted for report 1 ARR2772 POTW_PVSC

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

Seton Company, Inc. (Seton Tanning)

349 Oraton Street, Newark, NJ 07104 Newark 849 Broadway, Newark, NJ 07104 62 Verona Ave, Newark, NJ 07104

07104 NJ

Facility BS	CUF	CUF_Category	CUF_NOTES	COF	COF_NOTES	Facillty Adjusted BS
3.551E-4	10.0%	Periodic Noncompliacne	In 1956, it was noted that Seton dumped solid industrial waste into the sanitary sewer. In 1978, PVSC documented poor housekeeping and illegal industrial discharges to the combined sanitary and storm sewer system on Verona Avenue. Reportedly, the discharged material contained "high pH liquids as well as animal fats, greases and oils." Seton representatives indicated that they could not afford the pre-treatment that was required (PAS-00008172). According to the Civil Action Consent Order filed on May 2, 1991, Seton's wastewater discharge continued to exceed "pretreatment effluent limitations" for chromium, sulfur, and pH (PAS-00102337-338)		20% Failed to participate in conduct of allocation as offered by EPA	4.616E-4

AP_ABS

4.616E-4

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

Seton Company, Inc. (Seton Tanning)

349 Oraton Street, Newark, NJ 07104 Newark 849 Broadway, Newark, NJ 07104 62 Verona Ave, Newark, NJ 07104

07104 NJ

Facility BS	CUF	CUF_Category	CUF_NOTES	COF	COF_NOTES	Facillty Adjusted BS
5.682E-2	10.0%		In 1956, it was noted that Seton dumped solid industrial waste into the sanitary sewer. In 1978, PVSC documented poor housekeeping and illegal industrial discharges to the combined sanitary and storm sewer system on Verona Avenue. Reportedly, the discharged material contained "high pH liquids as well as animal fats, greases and oils." Seton representatives indicated that they could not afford the pre-treatment that was required (PAS-00008172). According to the Civil Action Consent Order filed on May 2, 1991, Seton's wastewater discharge continued to exceed "pretreatment effluent limitations" for chromium, sulfur, and pH (PAS-00102337-338)		20% Failed to participate in conduct of allocation as offered by EPA	7.386E-2

AP_ABS

7.386E-2

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Allocation Facility Cmass Calculation

Sherwin Williams Co. 60 Lister Ave 07105 Newark NJ

Constituent Of Concern (COC)	Overland, Fate &	Dmass Overland,	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge	Dmass Direct Discharge	COC Total Pathway	COC A%	COC Historic CMass
, ,	Transport	Fate &					С%		Cmass		
Copper	C% 100.00%	Transport 78.19	100.00%	1,351.31	0.00%	4,406.45	100.00%	1,789.6	3,219.08	1.018817E-2	32.8
Lead	100.00%	3,873.87	100.00%	2,758.20	0.00%	8,994.15	100.00%	3,652.8	10,284.83	1.018817E-2	104.78
Mercury	100.00%	308.17	100.00%	5.21	0.00%	16.99	100.00%	6.9	320.28	1.018817E-2	3.26
HPAHs	100.00%	10.58	100.00%	-	0.00%	-	100.00%	-	10.58	1.018817E-2	0.11
LPAHs	100.00%	1.17	100.00%	-	0.00%	-	100.00%	-	1.17	1.018817E-2	0.01
PCBs	100.00%	0.92	100.00%	-	0.00%	-	100.00%	-	0.92	1.018817E-2	0.01
DDx	100.00%	0.02	100.00%	-	0.00%	-	100.00%	-	0.02	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Protocol Calculation

Sherwin Williams Co. 60 Lister Ave 07105 Newark NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	32.8	1.562E-5	1.078E-5
Lead	0.01	3,200,000.00	104.78	3.274E-5	3.274E-7
Mercury	0.95	42,000.00	3.26	7.769E-5	7.381E-5
HPAHs	0.05	240,000.00	0.11	4.491E-7	2.246E-8
LPAHs	0.01	170,000.00	0.01	7.012E-8	7.012E-10
PCBs	12.87	26,000.00	0.01	3.605E-7	4.640E-6
DDx	1.37	27,000.00	0	7.547E-9	1.034E-8
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

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Allocation Facility COC Base Scores - Alternative Calulcation

0

0

0

38.00

3,729.82

0.00

Dioxins_Furans

83.92

herwin Williams Co.							60 Lister Ave			NJ	07105
Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score		
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	1.162E-2	32.8	24,375.26	1.162E-2	8.020E-3		
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	3.564E-2	104.78	113,942.38	3.564E-2	3.564E-4		
Mercury	0.95	42,000.00	4,322.53	41,955.96	7.410E-2	3.26	3,108.76	7.410E-2	7.039E-2		
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	2.434E-6	0.11	0.48	2.434E-6	1.217E-7		
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	3.883E-7	0.01	0.05	3.883E-7	3.883E-9		
PCBs	12.87	26,000.00	20,066.54	25,795.56	4.585E-5	0.01	1.18	4.585E-5	5.901E-4		
DDx	1.37	27,000.00	2,516.93	26,974.36	7.946E-6	0	0.21	7.946E-6	1.089E-5		
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0		

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For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

Sherwin Williams Co. 60 Lister Ave Newark NJ 07105

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Newark Bay	Bypass	0.00%	0.00%	Did not discharge waste into the Passaic river

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	Operations from 1901-1999
-	# hours/per day discharged #days/week discharged	From 1901-1924 wastewater directly discharged to Passaic River Volumes from:
	#days/week discharged #weeks/yr discharged	yolumes from: 1972 Waste Effluent Survey = 64429000 gallons in 1971
	calc gal/yr discharge (PAS00013183, PAS000123267, PAS00052110,11)	Heavy Metals Source Determination Study (1976-1978) = 0.3250 gpd
1925	Yr Ops started	1982 Hazardous Waste Investigation = 150000 gpd (avg)
	Yr Ops ceased	
	calc #yrs facility operated	
- (-)		
Copper (Cu)	#yrs facility discharged	1972 Waste Effluent Survey
	calc mg/L COC discharged (PAS00013183, PAS000123267,	Heavy Metals Source Determination Study (1976-1978)
	PAS00052110,11)	
	L per gallon (Merck Index) kg per mg (Merck Index)	1982 Hazardous Waste Investigation
5.757.76	calc kg COC discharged	
Lead (Pb)		
	#yrs facility discharged	1972 Waste Effluent Survey
0.53	calc mg/L COC discharged (PAS00013183, PAS000123267, PAS00052110,11)	Heavy Metals Source Determination Study (1976-1978)
3.785	L per gallon (Merck Index)	1982 Hazardous Waste Investigation
	kg per mg (Merck Index)	
	calc kg COC discharged	
Mercury (Hg)	#yrs facility discharged	1972 Waste Effluent Survey
	calc mg/L COC discharged (PAS00013183, PAS000123267,	Heavy Metals Source Determination Study (1976-1978)
	PAS00052110,11)	
	L per gallon (Merck Index)	1982 Hazardous Waste Investigation
0.000001	kg per mg (Merck Index) calc kg COC discharged	
HPAHs	sale ng coc distribused	
	#yrs facility discharged	
	calc mg/L O&G	
	% O&G that is considered PAHs % COC in O&G considered as PAHs	
-	calc mg/L HPAHs	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
LPAHs	Calc kg COC discharged	
	#yrs facility discharged	
-	calc mg/L O&G	
	% O&G that is considered PAHs % COC in O&G considered as PAHs	
50%	calc mg/L LPAHs	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
PCBs -	calc kg COC discharged	
	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
DDx	Late Ng COC distribiged	
33	#yrs facility discharged within DDx Timeline	
	calc mg/L COC discharged	
0.000001	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
Dieldrin		
38	#yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxins/Furans 74	#yrs facility discharged	
- 74	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Dioxin/Furan Precursor - 2,4-D	calc kg COC discharged	
	#yrs facility discharged within 2,4-D Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
0.000001	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T		
41	#yrs facility discharged within 2,4,5-T Timeline	
- 2 70E	calc mg/L COC discharged L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP	thurs facility discharged within 2.4.6 TCD Timplies	
26	#yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
Summary DMassCOC for POTW:		
5,757.76	kg Copper	
11,752.35	kg Lead	
	kg Mercury kg HPAHs	
	kg LPAHs	
-	kg PCBs	
·	kg DDx	
	kg Dieldrin kg Dioxins/Furans	

Sherwin Williams DMass formatted for report 1 ARR2779 POTW_PVSC

Discharge Calcs	Direct Discharge Information	COMMENTS/NOTES
	# hours/day discharged # days/week discharged	Operations from 1901-1999 From 1901-1924 wastewater directly discharged to Passaic River
	# weeks/yr discharged	Volumes from:
79,268,000	# gals/yr directly discharged (PAS00013183, PAS000123267,	1972 Waste Effluent Survey = 64429000 gallons in 1971
	PAS00052110,11)	Heavy Metals Source Determination Study (1976-1978) = 0.3250 gpd
4.08	ft; 30yr average annual precipitation per Rutgers information	1982 Hazardous Waste Investigation = 150000 gpd (avg)
13 £EU	ft2 per acre	
13.00	acres	
50%	Percent Precip to River	
1901	Yr Ops started	
1924	Yr Ops ceased	
23	calc #yrs facility operated	
Copper (Cu)		
23	#yrs facility discharged	1972 Waste Effluent Survey
	calc mg/L COC discharged (PAS00013183, PAS000123267, L per gallon (Merck Index)	Heavy Metals Source Determination Study (1976-1978) 1982 Hazardous Waste Investigation
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Lead (Pb) 23	#yrs facility discharged	1972 Waste Effluent Survey
	calc mg/L COC discharged (PAS00013183, PAS000123267,	Heavy Metals Source Determination Study (1976-1978)
2.705	PAS00052110,11) L per gallon (Merck Index)	1982 Hazardous Waste Investigation
	kg per mg (Merck Index)	7-205 Listel dons 44 92/G Hiscorikation
3,652.76	calc kg COC discharged	
Mercury (Hg)	#yrs facility discharged	1972 Waste Effluent Survey
	calc mg/L COC discharged (PAS00013183, PAS000123267,	Heavy Metals Source Determination Study (1976-1978)
	PAS00052110,11)	
	L per gallon (Merck Index) kg per mg (Merck Index)	1982 Hazardous Waste Investigation
6.90	calc kg COC discharged	
HPAHs 22	thus facility discharged	
- 23	#yrs facility discharged calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
LPAHs		
	#yrs facility discharged calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
DCRe	calc kg COC discharged	
PCBs -4	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
	calc kg COC discharged	
DDx	Hors facility disabased within DD. Time!	
-15	#yrs facility discharged within DDx Timeline calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
Dieldrin		
	#yrs facility discharged within Dieldrin Timeline	
3 785	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxins/Furans 23	#yrs facility discharged	
-	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
0.00001	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	and the state of t	
-21	#yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Dioxin/Furan Precursor - 2,4,5-T	calc kg COC discharged	
	#yrs facility discharged within 2,4,5-T Timeline	
2.705	calc mg/L COC discharged L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP	#yrs facility discharged within 2,4,6-TCP Timeline	
	alc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
S PM COO S		
Summary DMassCOC for Direct Discharge: 1,789.58	kg Copper	
3,652.76	kg Lead	
6.90	kg Mercury	
	kg HPAHs kg LPAHs	
-	kg PCBs	
	kg DDx	
-	kg Dieldrin kg Dioxins/Furans	

Sherwin Williams DMass formatted for report 2 ARR2780 Direct_SW_Passaic

ASSUMPTIONS, REFERENCES COMMENTS/NOTES Discharge Calcs **Direct Discharge Information** 4.08 FEET/YEAR AVERAGE PRECIPITATION Long term average annual precipitation includes floods and hurricane events Data from Rutgers University occurring over time. 13 ACRES - TOTAL SITE AREA (acres) FDR Page 1. 11.04 acres (PAP-00126535) to 13 acres (PAP-00126441). Max 0.65 ACRES - AFFECTED AREA Lot appears mostly paved based on Google Earth aerial photos from 1995 and Feb 2017 Final Soil RI (PAP-00126443), which states that 95% of the site is paved. The 2017 Soil RI also states that in the past, the site was entirely covered with impervious surfaces (PAP-00126564). Since operations began in 1901, will assume that some of the lot was not paved, ~5%. 4,046.86 METERS²/ACRE 2,630 METERS² (AFFECTED AREA) 0.0001 METERS/YEAR (ERODED SOIL THICKNESS) For this estimate, used a surface soil erosion rate of 0.1 mm/year, or 0.004 inches/year. 0 METERS³/YEAR (ERODED SOIL VOLUME) FDR Page 1. Production of paints and varnish. 1901 Year site operations began 1999 Year site processing and storage operations ceased FDR Page 1. Ceased operations. 98 NUMBER YEARS DISCHARGE FDR Page 1 26 METERS³ (TOTAL SOIL VOLUME DISCHARGED OVER TIME) 1,963 KG/M³ SOIL DENSITY 0-4 ft of fill beneath concerete is reddish brown silt with some fine to medium sand and gravel (PAP-00126564). Bulk density range for silty sand and gravel is 1442 KG/M³ to 2483 KG/M³, so use average. (http://structx.com/Soil_Properties_002.html) 50,590 KILOGRAMS (TOTAL SOIL DISCHARGED OVER TIME) Copper (Cu) 98 YEARS DISCHARGED 1,530 MG/KG (MAX CONCENTRATION) Copper concentration at B8-0.0-0.5 from 0-0.5 ft bgs (PAP-00367337). Used max result from shallowest depth. 0.000001 kg per mg (Merck Index) 77 KILOGRAMS DISCHARGED Lead (Pb) 98 YEARS DISCHARGED Lead concentration from H4-0.5/1 from 0.5-1 ft (PAP-00367333). Using the 75800 MG/KG (AVERAGE CONCENTRATION) max result from shallowest depth. 0.000001 kg per mg (Merck Index) 3,835 KILOGRAMS DISCHARGED Mercury (Hg) 98 YEARS DISCHARGED 6,030.0 MG/KG (MAX CONCENTRATION) Mercury concentration in AOC19-05-1.5-2 from 1.5-2 ft (PAP-00367332). Due to the density of mercury, the highest concentration is likely in subsurface soil. 0.000001 kg per mg (Merck Index) 305 KILOGRAMS DISCHARGED PAHs (listed in Benzo(a)pyrene Total concentration of PAH compounds for Benzo(a)pyrene Equivalent Equivalent conversion table) https://floridadep.gov/waste/petroleum-restoration/documents/benzo-pyrene-Toxic Concentration Equivalency Benzo(a)pyrene equivalents-conversion-table-one-sample. (mg/kg) Factor **Equivalents** Contaminant 98 YEARS DISCHARGED 140.000 1.0 140.0000 0-0.5 ft AOC13-03 (PAP-00367324) enzo(a)pyrene 0.1 74.000 7.4000 **206.9** MG/KG (TOTAL PAH AVERAGE CONCENTRATION) 0-0.5 ft (PAP-00367326) Benzo(a)anthracene 0.000001 kg per mg (Merck Index) 250.000 0.1 25.0000 Benzo(b)fluoranthene 0-0.5 ft (PAP-00367330) 0.01 0.8900 10 KILOGRAMS DISCHARGED 89.000 0-0.5 ft (PAP-00367330) Benzo(k)fluoranthene 0-0.5 ft (PAP-00367324) 200.000 0.001 0.2000 PAHs (others detected) Chrysene 24 mg/kg 0-0.5 ft (PAP-00367330) Dibenz(a,h)anthracene 24.0000 24.000 1.0 98 YEARS DISCHARGED Naphthalene - 23 mg/kg 0-0.5 ft (PAP-00367328) 0-0.5 ft (PAP-00367330) 23 MG/KG (TOTAL PAH MAX CONCENTRATION) Indeno(1,2,3-cd)pyrene 94.000 0.1 9.4000 0.000001 kg per mg (Merck Index) DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg 1 KILOGRAMS DISCHARGED Total Benzo(a)pyrene Equivalents = 206.9

69 YEARS DISCHARGED The 2017 Report indicates that PCB contamination is due to an off-site source, possibly a former oil refinery, that was located along the southwestern boundary of the Copco Parcel. The area was capped but the date was not provided (FDR Page 3). 18 MG/KG (MAX OF REPORTED CONCENTRATIONS) 18 mg/kg was identified in the Copco Parcel (FDR Page 3). 0.000001 kg per mg (Merck Index) 1 KILOGRAMS DISCHARGED FDR Page 4 - DDT overflowed from a tanker at the adjacent former Diamond FDR 5 - Inseticides may have been stored 1940s-1960s but Shamrock site and ran onto the Sherwin Williams site (PAP-00145018-19) no other info (PAP-00126497). 98 YEARS DISCHARGED within DDx Timeline Sum of 4,4-DDD and 4-4-DDE concentrations from sample at 0-0.5 ft (PAP-0.38 MG/KG (MAX CONCENTRATION) 00367342) 3.785 L per gallon (Merck Index) 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED 98 YEARS DISCHARGED within Dieldrin Timeline 0.093 MG/KG (MAX CONCENTRATION) Dieldrin concentration from sample at 0-0.5 ft (PAP-00367341) 3.785 L per gallon (Merck Index) 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED NONE FOUND IN AVAILABLE DOCUMENTATION Dioxins/Furans Dioxins were identified onsite but attributed to a different source (FDR page 3) (former manufacturing operations at an adjacent superfund site (PAP-00126551)) 98 YEARS DISCHARGED Dioxins/furans (TEQ) from sample at 0-0.5 ft (PAP-00367345) 0.023 MG/KG (MAX CONCENTRATION) 0.000001 kg per mg (Merck Index) 0 calc kg COC discharged SUMMARY CMASS ESTIMATES: 77.40 kg Copper 3,834.74 kg Lead 305.06 kg Mercury 10.47 kg PAHs (Benzo(a)pyrene Equivalent) 1.16 kg PAHs (Other) 0.91 kg PCBs 0.02 kg DDx 0.00 kg Dieldrin 0.00 kg Dioxins/Furans

4,229.77 MASS (KG) DISCHARGED FROM SURFACE SOIL

Discharge Calcs	Direct Discharge Information	ASSUMPTIONS, REFERENCES	COMMENTS/NOTES
	4.08 FEET/YEAR AVERAGE PRECIPITATION	Long term average annual precipitation includes floods and hurricane event occurring over time.	ts Data from Rutgers University
	13 ACRES - TOTAL SITE AREA (acres)	FDR Page 1. 11.04 acres (PAP-00126535) to 13 acres (PAP-00126441). Max value used.	
	0.65 ACRES - AFFECTED AREA	Lot appears mostly paved based on Google Earth aerial photos from 1995	_
		and Feb 2017 Final Soil RI (PAP-00126443), which states that 95% of the site is paved. The 2017 Soil RI also states that in the past, the site was entirely	е
		covered with impervious surfaces (PAP-00126564). Since operations began	
		in 1901, will assume that some of the lot was not paved, ~5%.	
	4,046.86 METERS ² /ACRE		
	2,630 METERS ² (AFFECTED AREA)		
	0.0001 METERS/YEAR (ERODED SOIL THICKNESS)	For this estimate, used a surface soil erosion rate of 0.1 mm/year, or 0.004 inches/year.	
	0 METERS ³ /YEAR (ERODED SOIL VOLUME)		
	1998 Year site operations began	Release to the Passaic documented March 1998 (FDR Page 10)	
	1999 Year site processing and storage operations ceased	Conservatively assume a one year spill period (FDR Page 10)	
	1 NUMBER YEARS DISCHARGE		
		_ _	
	⁰ METERS ³ (TOTAL SOIL VOLUME DISCHARGED OVER TIME)		
	1,963 KG/M ³ SOIL DENSITY	0-4 ft of fill beneath concerete is reddish brown silt with some fine to medium sand and gravel (PAP-00126564). Bulk density range for silty sand	
		and gravel is 1442 KG/M ³ to 2483 KG/M ³ , so use average.	
		(http://structx.com/Soil_Properties_002.html)	
	516 KILOGRAMS (TOTAL SOIL DISCHARGED OVER TIME)		
		Specific to the March 1998 release. A leak in an AST with slurry and cracks	
		in the AST pad resulted in a release to the Passaic. No known samples were collected (FDR Page 10, PAP-00126438). Will assume contamination levels	е
		from main spreadsheet.	
Copper (Cu)	1 YEARS DISCHARGED		
	1,530 MG/KG (MAX CONCENTRATION)	B8-0.0-0.5 from 0-0.5 ft bgs (PAP-00367337). Used max result from shallowest depth.	
	0.000001 kg per mg (Merck Index)		
Lood (Db)	1 KILOGRAMS DISCHARGED		
Lead (Pb)	1 YEARS DISCHARGED		
	75800 MG/KG (AVERAGE CONCENTRATION)	H4-0.5/1 from 0.5-1 ft (PAP-00367333). Using the max result from shallowest depth.	
	0.000001 kg per mg (Merck Index)		
Mercury (Hg)	39 KILOGRAMS DISCHARGED	AOC19-05-1.5-2 from 1.5-2 ft (PAP-00367332). Due to the density of	
Mercury (ng)		mercury, the highest concentration is likely in subsurface soil.	
	1 YEARS DISCHARGED	•	
	6,030.0 MG/KG (MAX CONCENTRATION) 0.000001 kg per mg (Merck Index)		
	U.000001 kg per frig (Merck fridex)		

3 KILOGRAMS DISCHARGED

PAHs (listed in Benzo(a); Equivalent conversion ta		Total concentration of PAH compounds for Benzo(a)pyrene Equivalent https://floridadep.gov/waste/petroleum-restoration/documents/benzo-pyrene-equivalents-conversion-table-one-sample.
	1 YEARS DISCHARGED	
	206.9 MG/KG (TOTAL PAH AVERAGE CONCENTRATION)	
	0.000001 kg per mg (Merck Index)	
DALIS (athors datasted)	0 KILOGRAMS DISCHARGED	
PAHs (others detected)	1 YEARS DISCHARGED	
	23 MG/KG (TOTAL PAH MAX CONCENTRATION)	Naphthalene - 23 mg/kg 0-0.5 ft (PAP-00367328)
	0.000001 kg per mg (Merck Index)	
	0 KILOGRAMS DISCHARGED	
PCBs		The 2017 Report indicates that PCB contamination is due to an off-site source, possibly a former oil refinery, that was located along the southwestern boundary of the Copco Parcel. The area was capped but the date was not provided (FDR Page 3).
	1 YEARS DISCHARGED	18 mg/kg was identified in the Copco Parcel (FDR Page 3).
	18 MG/KG (MAX OF REPORTED CONCENTRATIONS)	
	0.000001 kg per mg (Merck Index)	
DDv	0 KILOGRAMS DISCHARGED	CDD Dags 4. DDT avarflowed from a tanker at the adjacent former Diamon
DDx		FDR Page 4 - DDT overflowed from a tanker at the adjacent former Diamon Shamrock site and ran onto the Sherwin Williams site (PAP-00145018-19)
	1 YEARS DISCHARGED within DDx Timeline	
	0.38 MG/KG (MAX CONCENTRATION)	Sum of 4,4-DDD and 4-4-DDE concentrations from sample at 0-0.5 ft (PAP-00367342)
	3.785 L per gallon (Merck Index)	
	0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED	
Dieldrin	U REGULATION DISCHARGED	
	1 YEARS DISCHARGED within Dieldrin Timeline	
	0.093 MG/KG (MAX CONCENTRATION)	Dieldrin concentration from sample at 0-0.5 ft (PAP-00367341)
	3.785 L per gallon (Merck Index)	
	0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED	
Dioxins/Furans	NONE FOUND IN AVAILABLE DOCUMENTATION	Dioxins were identified onsite but attributed to a different source (FDR pag
		3) (former manufacturing operations at an adjacent superfund site (PAP-00126551))
	1 YEARS DISCHARGED	
	0.023 MG/KG (MAX CONCENTRATION)	Dioxins/furans (TEQ) from sample at 0-0.5 ft (PAP-00367345)
	0.000001 kg per mg (Merck Index) 0 calc kg COC discharged	
SUMMARY CMASS ESTIN	IATES:	
SOMMAN CIVIASS ESTIV	0.79 kg Copper	
	39.13 kg Lead	
	3.11 kg Mercury	
	0.11 kg PAHs (Benzo(a)pyrene Equivalent)	
	0.01 kg PCPs	
	0.01 kg PCBs	
	0.00 kg DDx	
	0.00 kg DDx 0.00 kg Dieldrin	

43.16 MASS (KG) DISCHARGED FROM SURFACE SOIL

	Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
0-0.5 ft AOC13-03 (PAP-00367324)	Benzo(a)pyrene	140.000	1.0	140.0000
0-0.5 ft (PAP-00367326)	Benzo(a)anthracene	74.000	0.1	7.4000
0-0.5 ft (PAP-00367330)	Benzo(b)fluoranthene	250.000	0.1	25.0000
0-0.5 ft (PAP-00367330)	Benzo(k)fluoranthene	89.000	0.01	0.8900
0-0.5 ft (PAP-00367324)	Chrysene	200.000	0.001	0.2000
24 mg/kg 0-0.5 ft (PAP-00367330)	Dibenz(a,h)anthracene	24.000	1.0	24.0000
0-0.5 ft (PAP-00367330)	Indeno(1,2,3-cd)pyrene	94.000	0.1	9.4000

Total Benzo(a)pyrene Equivalents =

206.9

;/kg 0-0.5 ft (PAP-00367328) DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

erflowed from a tanker at the adjacent former Diamond FDR 5 - Inseticides may have been stored 1940s-1960s n onto the Sherwin Williams site (PAP-00145018-19) but no other info (PAP-00126497).

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

Sherwin Williams Co.

60 Lister Av	⁄e		Newark	NJ	07105									
Facility BS	CUF	CUF_Catego	ry	CUF_NOTES C		CUF_NOTES		CUF_NOTES COF		CUF_NOTES COF COF_NOTES		COF_NOTES		Facillty Adjusted BS
8.958E-5	5.0%	Occasional Noncon	dis cor cau inv the dis clo	oills (emulsion paint and washwater/thinner) identified by former employees resulted in scharges to the Passaic River, but information for the quantity of the discharge or if they entained COCs was not available. NOV was issued by PVSC in 1986 as a result of cleaning using an accumulation of gray viscous material in the PVSC sand catcher. (No COC volvement) This was due to an accidental in-plant chemical spill, which caused blockages within eir waste piping disposal system (PAS-00014642-47). Correspondence from May and June 1987 scusses the continued problem of paint materials discharging from Sherwin Williams and orgging up the PVSC sand catcher located at the entrance of the Sherwin Williams site (PAS-1014638-41).		-20.0%	-20% CPG/SPG member - Continuous provision funding and participation in PRP Group(s) action cooperate with governmental/regulatory entitie address environmental or public harm created b activities	ns to es to	7.615E-5					
								AP_AI	BS	7.615E-5				

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

Sherwin Williams Co.

60 Lister Av	⁄e		Newark	NJ	07105						
Facility BS	CUF	CUF_Catego	ry	CUF_NOTES (CUF_NOTES COF			COF_NOTES	Facility Adjusted BS
7.937E-2	5.0%	Occasional Noncor	dis coi cau inv the dis clo	oills (emulsion paint and washwater/thinner) identified by former employees resulted in scharges to the Passaic River, but information for the quantity of the discharge or if they entained COCs was not available. NOV was issued by PVSC in 1986 as a result of cleaning rusing an accumulation of gray viscous material in the PVSC sand catcher. (No COC evolvement) This was due to an accidental in-plant chemical spill, which caused blockages within eir waste piping disposal system (PAS-00014642-47). Correspondence from May and June 1987 scusses the continued problem of paint materials discharging from Sherwin Williams and opging up the PVSC sand catcher located at the entrance of the Sherwin Williams site (PAS-0014638-41).		-20.0%	-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	6.746E-2			
								AP_ABS	6.746E-2		

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Allocation Facility Cmass Calculation

SpectraServ, Inc. 75 Jacobus Avenue 07032 Kearny NJ

Constituent Of Concern (COC)	Overland, Fate &	Dmass Overland,	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge	Dmass Direct Discharge	COC Total Pathway	COC A%	COC Historic CMass
	Transport C%	Fate & Transport					C%		Cmass		
Copper	100.00%	58.29	100.00%	-	0.00%	185,704.58	100.00%	9,810.8	9,869.13	1.018817E-2	100.55
Lead	100.00%	-	100.00%	-	0.00%	145,901.45	100.00%	7,910.1	7,910.1	1.018817E-2	80.59
Mercury	100.00%	0.13	100.00%	-	0.00%	12.47	100.00%	-	0.13	1.018817E-2	0
HPAHs	100.00%	1.64	100.00%	-	0.00%	-	100.00%	-	1.64	1.018817E-2	0.02
LPAHs	100.00%	1.79	100.00%	-	0.00%	-	100.00%	-	1.79	1.018817E-2	0.02
PCBs	100.00%	1.2	100.00%	-	0.00%	-	100.00%	-	1.2	1.018817E-2	0.01
DDx	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Protocol Calculation

SpectraServ, Inc. **75 Jacobus Avenue** 07032 Kearny NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	100.55	4.788E-5	3.304E-5
Lead	0.01	3,200,000.00	80.59	2.518E-5	2.518E-7
Mercury	0.95	42,000.00	0	3.153E-8	2.996E-8
HPAHs	0.05	240,000.00	0.02	6.962E-8	3.481E-9
LPAHs	0.01	170,000.00	0.02	1.073E-7	1.073E-9
PCBs	12.87	26,000.00	0.01	4.702E-7	6.052E-6
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Alternative Calulcation

SpectraServ, Inc.		75 Jacobus Avenue	Kearny	NJ	07032

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	3.563E-2	100.55	74,730.33	3.563E-2	2.459E-2
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	2.741E-2	80.59	87,633.5	2.741E-2	2.741E-4
Mercury	0.95	42,000.00	4,322.53	41,955.96	3.007E-5	0	1.26	3.007E-5	2.857E-5
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	3.773E-7	0.02	0.07	3.773E-7	1.887E-8
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	5.941E-7	0.02	0.08	5.941E-7	5.941E-9
PCBs	12.87	26,000.00	20,066.54	25,795.56	5.980E-5	0.01	1.54	5.980E-5	7.696E-4
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

SpectraServ, Inc. 75 Jacobus Avenue Kearny NJ 07032

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Newark Bay	Bypass	0.00%	0.00%	Did not discharge waste into the Passaic river

September Sept	Discharge Calcs		
		#weeks/yr discharged	
Comment Comm	76,893,333		
Sept Color		PAP00192816	
Sept Color	1962	Yr Ops started	
September Sept	2020	Yr Ops ceased	
18	58	calc #yrs facility operated	
18	Copper (Cu)		
1.00 cm spl. CC destroyed PASSON SET, MANDESCORE, 1990 SCORE 1800 1900		#yrs facility discharged	2012-2016 DMRs showed range of .011-79.9mg/l discharged. Assuming average = 39.96 mg/l
Page		calc mg/L COC discharged PAS00054825, PAP00455914, PAP00206942,	
		PAP00192816	
15.50.00 15.50.00	3.785	L per gallon (Merck Index)	2017 Permit Limit = <.0048mg/l
Lead Poly	0.000001	kg per mg (Merck Index)	2020 Permit Limit = 3.98 mg/l
19		calc kg COC discharged	
1.		#vrs facility discharged	1991 PVSC Sewer Connection Permit = .43 mg/l avg
3.35 Company 10 10 10 10 10 10 10 1			
March March Color Long March Color Long March Ma			
Memory M			
1,202 1 mg 1,000 1 mg 1,00		and the state of t	
1.725 See galon (Mesch Intell)	58		
1,000 1,00			2015 Permit Limit -<.000739 mg/l
1.41 1.41			
1901 1902 1903			
1875 186 186 1875 18	HPAHs		
16th			
Series SCOC m ORG consistent as PANN			
3.755 Lee palos (Mests News) 0.000001 Sep error (Mests News) 1.00000 Sep error (Mests News) 1.000000 Sep error (Mests News) 1.00000 Sep error (Mests News) 1.000000 Sep error (Mests News) 1.00000 Sep error (Mests News)			
0,000001 kg per mg (Merks Mede) color	-	calc mg/L HPAHs	
Debt			
1945 S. Part Scilly discharged	- 0.000001	calc kg COC discharged	
- als regio AGG	LPAHs		
100 S O Bit Statis considered PANS	58		
Section Color (Color (Color Color Color Color (Color Color Col	- 10%		
- clair mg/L CART Collection (Collection Indexes) - 3.785 Low praise (Mortan Indexes) - 2.885 Low praise (Mortan Indexes) - 2.885 Low praise (Mortan Indexes) - 3.785 Low praise			
0.00003 Sper prog Merks Indian)			
Common C			
PCBs			
16 yet follow (dicharged within PCRs Timeline		Laic kg COC distriarged	
3.785 Liper pallon (Merick Index) Igp per mg (Merick Index)	16		
0.000001 tgp rmg (Merk: Index) 0.0000/fsran Precursor - 2,4.5-T 0.00000/fsran Precursor - 2,4.5-T 0.000000/fsran Precursor - 2,4.5-T 0.0000000000000000000000000000000000			
Discription	3 /85		
11 Pry facility discharged within DDx Timeline			
- cike mg/L CCC discharged		kg per mg (Merck Index)	
3.785 per gallon (Merck index)	0.000001 - DDx	kg per mg (Merck Index) calc kg COC discharged	
Deldrin	0.000001 - DDx 11	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline	
Deletrin	0.000001 - DDx - 11	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged	
25	0.000001 - DDx 11 - 3.785	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
Cale mg/L CCC discharged Cale mg/L CCC disch	0.000001	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
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Dioxins/Furans	0.000001 - DDx - 11 - 3.785 0.000001 - Dieldrin - 26	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged	
Dioxins/Furans S8	0.000001 - DDX 11 3.785 0.000001 Dieldrin 26 3.785	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged Lper gallon (Merck Index) Lper gallon (Merck Index)	
S8	0.000001 - DDX 11 3.785 0.000001 Dieldrin 26 3.785	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index)	
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Dloxin/Furan Precursor - 2,4-D Sprys facility discharged within 2,4-D Timeline Calc mg/L COC discharged Calc mg/L COC dis	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58	kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged calc mg/L COC discharged calc mg/L COC discharged	
Dioxin/Furan Precursor - 2,4-D	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Leper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Leper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged #yrs facility discharged #yrs facility discharged calc mg/L COC discharged Leper gallon (Merck Index) Leper gallon (Merck Index) #yrs facility discharged Leper gallon (Merck Index) Leper gallon (Merck Index)	
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Superage	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
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Calc kg COC discharged Calc kg COC discharged Calc kg COC discharged within 2,4,5-T Timeline Calc kg COC discharged Calc kg COC discharg	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 58 - 58 - 58 - 58 - 58 - 58 - 58	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged disch kg COC discharged ##yrs facility discharged disch kg COC discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
24 #yrs facility discharged within 2,4,5-T Timeline	0.000001 - DDX - 11 - 3.785 - 0.00001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxins/Furan Precursor - 2,4-D - 59 - 1 - 3.785 - 3.785 - 3.785 - 3.785	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index)	
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Dioxin/Furan Precursor - 2,4,6-TCP	0.00001	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) dack kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged L per gallon (Merck Index) calc mg/L COC discharged L per gallon (Merck Index) calc mg/L COC discharged #yrs facility discharged #yrs facility discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) calc kg COC discharged #yrs facility discharged	
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Dioxin/Furan Precursor - 2,4,6-TCP	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) die kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged	
##yrs facility discharged within 2,4,6-TCP Timeline	0.000001 - 11 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001 - 126 - 3.785 - 0.000001	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility di	
- calc mg/L COC discharged 3.785 Loer gallon (Merck Index) 0.00001 kg per mg (Merck Index) - calc kg COC discharged Summary DMassCOC for POTW: 185,704.58 kg Copper 145,901.46 kg Lead 12.47 kg Mercury	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxins/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 24 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility di	
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Summary DMassCOC for POTW: 185,704.58 kg Copper 145,901.46 kg Lead 12.47 kg Mercury	0.000001 - DDx - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 24 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 24 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged	
185,704.58 kg Copper 145,901.46 kg Lead 12.47 kg Mercury	0.000001 - DDX - 11 - 3.785 - 0.000001 - Diokins/Furan Precursor - 2,4-5-T - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index)	
185,704.58 kg Copper 145,901.46 kg Lead 12.47 kg Mercury	0.000001 - DDX - 11 - 3.785 - 0.000001 - Diokins/Furan Precursor - 2,4-5-T - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index)	
145,901.46 kg Lead 12.47 kg Mercury	0.000001 - DDX - 11 - 3.785 - 0.000001 - Diokins/Furan Precursor - 2,4-5-T - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index)	
12.47 kg Mercury	0.000001 - DDx - 11 - 3.785 - 0.000001 26 - 3.785 - 0.00001 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.00001 - 0.000001	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 59 - 1 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 24 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) discharged ##yrs facility discharged Lper gallon (Merck Index) calc mg/L COC discharged Lper gallon (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged Lper gallon (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged ##yrs facility discharged ##yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged ##yrs facility discharged ##yrs fa	
	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.00001 - Dioxins/Furans - 58 - 3.785 - 0.00001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 59 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 24 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged ##yrs facility discharged L per gallon (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged ##yrs facility discharged ##yrs facility discharged L per gallon (Merck Index) calc kg COC discharged ##yrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) ##yrs facility discharged L per gallon (Merck Index) ##yrs facility discharged ##yrs facility discharged L per gallon (Merck Index) ##yrs facility discharged ##yrs facility discha	
- kg LPAHs	0.000001	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg Lead kg Mercury	
- kg PCBs	0.000001	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged #yrs facility discharged #yrs facility discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg LeAHs kg LPAHs	
- kg DDx - kg Dieldrin	0.000001 - DDX - 11 - 3.785 - 0.000001 - Dieldrin - 26 - 3.785 - 0.000001 - Dioxins/Furans - 58 - 3.785 - 0.000001 - Dioxins/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 24 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 14 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged ##yrs facility discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged ##yrs facility discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4-5-T Timeline calc mg/L COC discharged ##yrs facility discharged within 2,4-5-T Timeline calc mg/L COC discharged ##yrs facility discharged within 2,4-6-TCP Timeline calc mg/L COC discharged ##yrs facility dis	

SpectraServ DMass formatted for report 1 ARR2791 POTW_PVSC

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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ADR CONFIDENTIAL COMMUNICATION FINAL 12/28/2020

- kg Dioxins/Furans

SpectraServ DMass formatted for report 2 ARR2792 POTW_PVSC

Discharge Calcs	Direct Discharge Information	COMMENTS/NOTES
	# hours/day discharged	Stormwater Directly Discharged to Passaic Riverno data on flow so calcluated based on rainfall data
	# days/week discharged	and assuming 50% makes to river
	# weeks/yr discharged	
4,324,598	# gals/yr directly discharged	
4.08	ft; 30yr average annual precipitation per Rutgers information	
43 560	acres ft2 per acre	
	acres	
	Percent Precip to River	
	Yr Ops started Yr Ops ceased	
	calc #yrs facility operated	
	, , , , , , , , , , , , , , , , , , , ,	
Copper (Cu)		
58	#yrs facility discharged	2012-2016 DMRs showed range of .011-79.9mg/l discharged. Assuming average = 39.96 mg/l
11.001	calc mg/L COC discharged PAS00054825, PAP00455914, PAP00206942,	
11.001	PAP00192816	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Lead (Pb)	#yrs facility discharged	1991 PVSC Sewer Connection Permit = .43 mg/l avg
	calc mg/L COC discharged PAS00054825, PAP00455914, PAP00206942,	2012-2016 DMRs showed range of 5.1-60.46mg/l discharged. Assuming average = 32.78 mg/l
	PAP00192816	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
Mercury (Hg)	calc kg COC discharged	
58	#yrs facility discharged	
-	calc mg/L COC discharged PAP00192816	2015 Permit Limit -<.000739 mg/l
	L per gallon (Merck Index)	Credit for NJPDES Permit
0.000001	kg per mg (Merck Index) calc kg COC discharged	
HPAHs		
58		
-	calc mg/L COC discharged	
	Languaglian (Manada Indon)	
	L per gallon (Merck Index) kg per mg (Merck Index)	
5.00001	calc kg COC discharged	
LPAHs		
58		
2.705	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
PCBs		
	#yrs facility discharged within PCBs Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
DDx		
11	#yrs facility discharged within DDx Timeline	
2 795	calc mg/L COC discharged L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dieldrin	W. C.	
26	#yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxins/Furans	there facility discharged	
58	#yrs facility discharged calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Piovin/Euran Procures - 2.4.D	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	#yrs facility discharged within 2,4-D Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
- Dioxin/Furan Precursor - 2,4,5-T	calc kg COC discharged	
24 24	#yrs facility discharged within 2,4,5-T Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Dioxin/Furan Precursor - 2,4,6-TCP	calc kg COC discharged	
	#yrs facility discharged within 2,4,6-TCP Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
-	rear ve coe nizulai ken	
Summary DMassCOC for Direct Discharge:		
9,810.84	kg Copper	
	kg Lead	
7,910.10	kg Mercury kg HPAHs	
-	kg HPAHs kg LPAHs	
-	kg HPAHs kg LPAHs kg PCBs	
	kg HPAHs kg LPAHs kg PCBs kg DDx	
	kg HPAHs kg LPAHs kg PCBs	

SpectraServ DMass formatted for report 3 ARR2793 Direct_SW_Passaic

ASSUMPTIONS, REFERENCES **COMMENTS/NOTES** Discharge Calcs **Direct Discharge Information** 4.08 FEET/YEAR AVERAGE PRECIPITATION Long term average annual precipitation includes floods and hurricane events Data from Rutgers University. occurring over time. 6.5 ACRES - TOTAL SITE AREA (acres) FDR page 1 1 ACRES - AFFECTED AREA Rough estimate of site area with exposed fill determined from review of historical aerial photographs 1995-2020 (Google Earth) 4,046.86 METERS²/ACRE 2,023 METERS² (AFFECTED AREA) 0.0001 METERS/YEAR (ERODED SOIL THICKNESS) For this estimate, used a surface soil erosion rate of 0.1 mm/year, or 0.004 inches/year. VOLUME/YEAR DISCHARGED TO PASSAIC RIVER 0 METERS³/YEAR (ERODED SOIL VOLUME) 1962 Year site operations began FDR page 1 2020 Year site processing and storage operations ceased Present (FDR page 1) 58 NUMBER YEARS DISCHARGE 12 METERS³ (TOTAL SOIL VOLUME DISCHARGED OVER TIME) 1,963 KG/M³ SOIL DENSITY Fill reported as fine to coarse sand, with some silt and trace and gravel (PAP-00192948-62). Bulk density range for silty sand and gravel 1442 KG/M³ to 2483 KG/M³, so use average. (http://structx.com/Soil_Properties_002.html) 23,038 KILOGRAMS (TOTAL SOIL DISCHARGED OVER TIME) Copper (Cu) 58 YEARS DISCHARGED 2,530 MG/KG (MAX CONCENTRATION) Copper concentration in on-site surface soil sample S-21 (0-1) (PAS-00054863). 0.000001 kg per mg (Merck Index) 58 KILOGRAMS DISCHARGED Lead (Pb) 58 YEARS DISCHARGED 0 MG/KG (MAX CONCENTRATION) Lead concentration in on-site surface soil sample S-13 (0-1). Set to 0 since less than 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED Mercury (Hg) 58 YEARS DISCHARGED 5.6 MG/KG (MAX CONCENTRATION) Mercury concentration in on-site surface soil sample SS-1 (0-1) (PAS-00054863). 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED Total concentration of PAH compounds for Benzo(a)pyrene Equivalent PAHs (listed in Benzo(a)pyrene https://floridadep.gov/waste/petroleum-restoration/documents/benzo-pyrene-Equivalent conversion table) equivalents-conversion-table-one-sample. 58 YEARS DISCHARGED **71.3** MG/KG (TOTAL PAH MAX CONCENTRATION) Sum of Benzo(a)pyrene Equivalent conversion concentrations using maximum concentrations found in surface soil sample S-14 (0-1 ft bgs) (PAS-00054858). 0.000001 kg per mg (Merck Index) 2 KILOGRAMS DISCHARGED PAHs (others detected) Data below the Benzo(a)pyrene Equivalent Table 58 YEARS DISCHARGED 77.6 MG/KG (TOTAL PAH MAX CONCENTRATION) 0.000001 kg per mg (Merck Index) 2 KILOGRAMS DISCHARGED PCBs 58 YEARS DISCHARGED 52 MG/KG (MAX CONCENTRATION) Total PCBs concentration in on-site surface soil sample S-21 (0-1) (PAS-00054862). 0.000001 kg per mg (Merck Index) 1 KILOGRAMS DISCHARGED 0 NONE FOUND IN AVAILABLE DOCUMENTATION 0 MG/KG (MAX CONCENTRATION)

(mg/kg)	Equivalency Factor	Benzo(a)pyrene Equivalents
58.110	1.0	58.1100
36.590	0.1	3.6590
55.670	0.1	5.5670
0.000	0.01	0.0000
49.400	0.001	0.0494
0.000	1.0	0.0000
38.650	0.1	3.8650
	36.590 55.670 0.000 49.400 0.000	36.590 0.1 55.670 0.1 0.000 0.01 49.400 0.001 0.000 1.0 38.650 0.1

Total Benzo(a)pyrene Equivalents = 71.3

Sample S-15 (0-1 ft bgs) (PAS-0	00054858)
Anthracene	4.214
Acenaphthene	3.808
Acenaphthylene	0
Fluorene	4.196
Naphthalene	27.36
Phenanthrene	22.14
2-Methylnaphthalene	15.93
SUM	77.648

3.785 L per gallon (Merck Index) 0.000001 kg per mg (Merck Index)

0 KILOGRAMS DISCHARGED

Dieldrin

0 NONE FOUND IN AVAILABLE DOCUMENTATION

0 MG/KG (MAX CONCENTRATION)

3.785 L per gallon (Merck Index)

0.000001 kg per mg (Merck Index)

0 KILOGRAMS DISCHARGED

Dioxins/Furans

69 NONE FOUND IN AVAILABLE DOCUMENTATION

0 MG/KG (MAX CONCENTRATION)

0.000001 kg per mg (Merck Index)

0 calc kg COC discharged

SUMMARY CMASS ESTIMATES:

58.29 kg Copper 0.00 kg Lead

0.13 kg Mercury

1.64 kg PAHs (Benzo(a)pyrene Equivalent)

1.79 kg PAHs (Other)

1.20 kg PCBs

0.00 kg DDx

0.00 kg Dieldrin 0.00 kg Dioxins/Furans

63.04 MASS (KG) DISCHARGED FROM SURFACE SOIL

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

SpectraServ, Inc.

75 Jacobus	Avenue	2	Kearny	NJ	07032				
Facility BS	CUF	CUF_Catego	ry		С	UF_NOTES	COF	COF_NOTES	Facillty Adjusted BS
3.938E-5	5.0%	Occasional Noncon	(e. dis	.g., petroleum hydrod	carbons, discharge of floatable greases to	om PVSC since 1999. The NOVs were for non-COCs sludge to the sanitary sewer, use of water to dilute a the sanitary sewer, discharge of solids to the sanitary	0.0%	0% Cooperation with conduct of allocation and requests for related information	4.134E-5
								AP_ABS	4.134E-5

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

SpectraServ, Inc.

75 Jacobus	Avenue		Kearny	NJ	07032				
Facility BS	CUF	CUF_Catego	ry		C	UF_NOTES	COF	COF_NOTES	Facility Adjusted BS
2.566E-2	5.0%	Occasional Noncon		(e.g., petroleum hyd	rocarbons, discharge o of floatable greases to	om PVSC since 1999. The NOVs were for non-COCs f sludge to the sanitary sewer, use of water to dilute a the sanitary sewer, discharge of solids to the sanitary		0% Cooperation with conduct of allocation and requests for related information	2.694E-2
								AP_ABS	2.694E-2

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Allocation Facility Cmass Calculation

Stanley Black & Decker, Inc. 140 Chapel St NJ 07105 Newark

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	С%	Transport									
Copper	100.00%	493.88	100.00%	381.35	0.00%	722.56	100.00%	146.7	1,021.89	1.018817E-2	10.41
Lead	100.00%	7,154.69	100.00%	343.07	0.00%	650.03	100.00%	131.9	7,629.7	1.018817E-2	77.73
Mercury	100.00%	0.38	100.00%	-	0.00%	-	100.00%	-	0.38	1.018817E-2	0
HPAHs	100.00%	0.71	100.00%	2,473.63	0.00%	4,686.88	100.00%	951.3	3,425.67	1.018817E-2	34.9
LPAHs	100.00%	17.27	100.00%	1,649.09	0.00%	3,124.59	100.00%	634.2	2,300.58	1.018817E-2	23.44
PCBs	100.00%	2.19	100.00%	-	0.00%	-	100.00%	-	2.19	1.018817E-2	0.02
DDx	100.00%	0.02	100.00%	-	0.00%	-	100.00%	-	0.02	1.018817E-2	0
Dieldrin	100.00%	•	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Protocol Calculation

Stanley Black & Decker, Inc.

140 Chapel St

Newark

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	10.41	4.958E-6	3.421E-6
Lead	0.01	3,200,000.00	77.73	2.429E-5	2.429E-7
Mercury	0.95	42,000.00	0	9.218E-8	8.757E-8
HPAHs	0.05	240,000.00	34.9	1.454E-4	7.271E-6
LPAHs	0.01	170,000.00	23.44	1.379E-4	1.379E-6
PCBs	12.87	26,000.00	0.02	8.582E-7	1.104E-5
DDx	1.37	27,000.00	0	6.868E-9	9.409E-9
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	1.609E-7	1.350E-5

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Alternative Calulcation

Stanley Black &	Decker, Inc	•				140 Chapel S	St		Newark	NJ	07105	
Constituent Of	Relative	Total Mass	Total Cmass	Total OS COC	COC %	COC Historic	Eacility OS	COC Polativo	COC Base			

Constituent Of Concern (COC)	Relative Risk	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
, ,	Number (RRN)	, ,	, ,						
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	3.690E-3	10.41	7,737.91	3.690E-3	2.546E-3
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	2.644E-2	77.73	84,527.	2.644E-2	2.644E-4
Mercury	0.95	42,000.00	4,322.53	41,955.96	8.791E-5	0	3.69	8.791E-5	8.352E-5
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	7.882E-4	34.9	154.26	7.882E-4	3.941E-5
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	7.636E-4	23.44	106.37	7.636E-4	7.636E-6
PCBs	12.87	26,000.00	20,066.54	25,795.56	1.091E-4	0.02	2.82	1.091E-4	1.405E-3
DDx	1.37	27,000.00	2,516.93	26,974.36	7.231E-6	0	0.2	7.231E-6	9.907E-6
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	1.609E-7	0	0	1.609E-7	1.350E-5

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

Stanley Black & Decker, Inc. 140 Chapel St Newark NJ 07105

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Newark Bay	Bypass	0.00%	0.00%	Did not discharge waste into the Passaic river

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	Prior to 1925 it is presumed that the facility discharged directly to the Passaic River
	# hours/per day discharged	PVSC discharge calculated from 1925-1985 based on available data
	#days/week discharged	1974-1981 discharge volumes
	#weeks/yr discharged	- 43800000, 46566656, 34075888, 17455588 gallons (1974, 1979, 1980 and 1981)
36,920,626	calc gal/yr discharge (PAP00019268, 293, 288, 301)	- 1984 .117 MGD
1925	Yr Ops started	
	Yr Ops ceased	
61	calc #yrs facility operated	FDR Page 22
Copper (Cu)		
	#yrs facility discharged	1980 PVSC Application Data for Metals
0.130	calc mg/L COC discharged PAP00019285	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
1,103.91	calc kg COC discharged	
Lead (Pb)		
61	#yrs facility discharged	1980 PVSC Application Data for Metals
0.117	calc mg/L COC discharged PAP00019285	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
993.09	calc kg COC discharged	
Mercury (Hg)		
61	#yrs facility discharged	
-	calc mg/L COC discharged PAP00019285	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
e	calc kg COC discharged	
HPAHs		
	#yrs facility discharged	1980 PVSC Application Data for Oil and Grease
	calc mg/L O&G PAP00019285	
	% O&G that is considered PAHs	
	% PAHs considered as HPAHs	
	calc mg/L HPAHs	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
LPAHs		
	#yrs facility discharged	1980 PVSC Application Data for Oil and Grease
	calc mg/L O&G PAP00019285	
	% O&G that is considered PAHs	
	% PAHs considered as LPAHs	
	calc mg/L LPAHs	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
PCBs		
	#yrs facility discharged within PCBs Timeline	
=	calc mg/L COC discharged	
	calc mg/L COC discharged L per gallon (Merck Index)	
	L per gallon (Merck Index)	
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Stanley Black and Decker2 DMass formatted for report 1 ARR2802 POTW_PVSC

Discharge Calcs	Direct Discharge Information	COMMENTS/NOTES
	# hours/day discharged	Direct discharge was direct to Passaic River per NJPDES Permits
	# days/week discharged # weeks/yr discharged	Prior to 1925 presumed all discharge direct to river Caculating Stormwater discharge based on rainfall flow and combining with wastewater flow information (assume
	# weeks/yr discharged	34MG per year per POTW-PVSC Calc.)
2.927.420	# gals/yr directly discharged	Volume is stormwater calculated as 2927420 + 34MG/yr
4.08	ft; 30yr average annual precipitation per Rutgers information	Per the assertion that Stanley Black and Decker is not responsible for actions by Atha Tools from the 1800s through
		1920s the discharge to surface water Dmass calculation has been modified to be only from 1920-1925 when it is
		presumed that all discharges were changed to the PVSC
42.550	acres ft2 per acre	
	acres	
	Percent Precip to River	
	Yr Ops started	
	Yr Ops ceased	
8	calc #yrs facility operated	FDR Page 22
Copper (Cu)	#yrs facility discharged	1980 PVSC Application Data for Metals
0.130	calc mg/L COC discharged PAP00019285	1980 PVSC Application Data for Metals
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Lead (Pb)		
	#yrs facility discharged	1980 PVSC Application Data for Metals
	calc mg/L COC discharged PAP00019285	
	L per gallon (Merck Index) kg per mg (Merck Index)	
	kg per mg (Merck Index) calc kg COC discharged	
Mercury (Hg)		
	#yrs facility discharged	
-	calc mg/L COC discharged PAP00019285	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
HPAHs		2000 01/00 4 1/1 1/1 0 4 1/1 0/1 1/0
	#yrs facility discharged	1980 PVSC Application Data for Oil and Grease
	calc mg/L O&G PAP00019285	
	% O&G that is considered PAHs % PAHs considered as HPAHs	
	calc mg/L HPAHs	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
951.33	calc kg COC discharged	
LPAHs		
	#yrs facility discharged	1980 PVSC Application Data for Oil and Grease
	calc mg/L O&G PAP00019285	
	% O&G that is considered PAHs % PAHs considered as LPAHs	
	% PAHS CONSIDERED AS LPAHS calc mg/L LPAHS	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
634.22	calc kg COC discharged	
PCBs		
	#yrs facility discharged within PCBs Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
DDx	calc kg COC discharged	
	#yrs facility discharged within DDx Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Dieldrin		
	#yrs facility discharged within Dieldrin Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.00001	kg per mg (Merck Index) calc kg COC discharged	
Dioxins/Furans	g	
8	#yrs facility discharged	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	there facility discharged within 2.4 D.Ti	
	#yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T		
-20	#yrs facility discharged within 2,4,5-T Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
Dioxin/Furan Precursor - 2,4,6-TCP	calc kg COC discharged	
-25	#yrs facility discharged within 2,4,6-TCP Timeline	
	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Summary DMassCOC for Direct Discharge:	ka Conner	
146.66	kg Copper kg Lead	
131.94	kg Mercury	
951.33	kg HPAHs	
634.22	kg LPAHs	
-	kg PCBs	
-	kg DDx	
-	kg Dieldrin	
-	kg Dioxins/Furans	

Stanley Black and Decker2 DMass formatted for report 3 ARR2803 Direct_SW_Passa

DISCHARGE CALCULATIONS DIRECT DISCHARGE INFORMATION ASSUMPTIONS, REFERENCES **COMMENTS/NOTES** 4.08 FEET/YEAR AVERAGE PRECIPITATION Long term average annual precipitation includes floods and hurricane events Data from Rutgers University. occurring over time. 6.2 ACRES - TOTAL SITE AREA (acres) FDR, page 1, confirmed with Google Earth Stanley Black and Decker; formerly known as The Stanley Works (Stanley), 139 and 140 Chapel Street, Newark, New Jersey. The site is comprised of two parcels of land separated by Chapel Street. The Western Parcel is approximately 1.8 acres; the Eastern Parcel approximately 4.4 acres (PAS-00085749). 3.0 ACRES - AFFECTED AREA 3 acres exposed land - western 1.8 acres and eastern 1.2 acres (1995-2020 Google Earth aerial photos) 4,046.86 METERS²/ACRE 12,141 METERS² (AFFECTED AREA) 0.0001 METERS/YEAR (ERODED SOIL THICKNESS) For this estimate, used a surface soil erosion rate of 0.1 mm/year, or 0.004 inches/year. 1 METERS³/YEAR (ERODED SOIL VOLUME) VOLUME/YEAR DISCHARGED 1917 Year Stanley purchased the site Operator: 1875 – 1985; Owner: 1875 – December 1997; acquired the site in 1917 1997 Year site operations ceased and merged with The Stanley Works in 1920 (FDR page 1) 80 NUMBER YEARS DISCHARGE 97 METERS³ (TOTAL SOIL VOLUME DISCHARGED OVER TIME) 2,250 KG/M³ SOIL DENSITY Fill reported as a variety of materials, including coal slag, cinders, green glass slag, crushed bricks, assorted gravel, and brown-black sand and silt (PAP-00016872-75). Bulk density range 2002 KG/M³ to 2499 KG/M³, so use average. (http://structx.com/Soil_Properties_002.html) 218,530 KILOGRAMS (TOTAL SOIL DISCHARGED OVER TIME) The entirety of the site is located on historic fill material (FDR page 15) Copper (Cu) 80 YEARS DISCHARGED 2,260 MG/KG (MAX CONCENTRATION) Well boring 447A-MW05-01 at depth of 0.0-0.5 ft bgs (PAP-00017102) 0.000001 kg per mg (Merck Index) 494 KILOGRAMS DISCHARGED Lead (Pb) 80 YEARS DISCHARGED 32,740 MG/KG MAX CONCENTRATION) Well boring 447A-MW05-01 at depth of 0.0-0.5 ft bgs (PAP-00017081-110) 0.000001 kg per mg (Merck Index) 7,155 KILOGRAMS DISCHARGED Mercury (Hg) 80 YEARS DISCHARGED 1.7 MG/KG (MAX CONCENTRATION) Sample location 447A-0001-02 0001 at depth of 5.7-6.2 ft bgs (PAP-00017081) 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED PAHs (listed in Benzo(a)pyrene Benzo(a)pyrene Equivalent https://floridadep.gov/waste/petroleum-Toxic Concentration Benzo(a)pyrene Equivalent conversion table) restoration/documents/benzo-pyrene-equivalents-conversion-table-one-sample. Contaminant **Equivalency** (mg/kg) Equivalents **Factor** PAH CONCENTRATIONS USED HERE ARE FROM SOIL SAMPLE 80 YEARS DISCHARGED Benzo(a)pyrene 0.000 1.0 0.0000 3.3 MG/KG (TOTAL PAH MAX CONCENTRATION) 447A-2101-01 COLLECTED AT DEPTH OF 0.0-0.5 FT. (PAPenzo(a)anthracene 10.000 0.1 1.0000 00017157). MAX PAH CONCENTRATIONS FOR SHALLOW 0.0000 0.000001 kg per mg (Merck Index) Benzo(b)fluoranthene 0.000 0.1 SURFACE SAMPLES. KILOGRAMS DISCHARGED Benzo(k)fluoranthene 0.000 0.01 0.0000 PAHs (others detected) Chrysene (OTHERS APPLY TEF = 0.01) 0.001 0.0110 11.000 80 YEARS DISCHARGED Dibenz(a,h)anthracene 1.600 1.0 1.6000 79 MG/KG (TOTAL PAH MAX CONCENTRATION) Indeno(1,2,3-cd)pyrene 6.400 0.6400 0.1 DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg 0.000001 kg per mg (Merck Index) 17 KILOGRAMS DISCHARGED Total Benzo(a)pyrene Equivalents = 3.3

67 YEARS DISCHARGED

10 MG/KG (MAX OF REPORTED CONCENTRATIONS) 0.000001 kg per mg (Merck Index)

2 KILOGRAMS DISCHARGED

57 YEARS DISCHARGED within DDx Timeline

0.117 MG/KG (MAX CONCENTRATION)

0.000001 kg per mg (Merck Index) 0.018217 KILOGRAMS DISCHARGED

0 YEARS DISCHARGED within Dieldrin Timeline 0 MG/KG (MAX CONCENTRATION) 0.000001 kg per mg (Merck Index)

0.00 KILOGRAMS DISCHARGED Dioxins/Furans NONE FOUND IN AVAILABLE DOCUMENTATION **57 YEARS DISCHARGED**

0.0027 MG/KG (MAX CONCENTRATION)

PCBs were used in a transformer (and possibly other electrical equipment) at the site (PAP-00018252, 257, 328, 332). Transformers were likely present at the site because most manufacturing operations had transformers containing PCBs during the period of operation. These

could have led to releases from leaks, poor storage or disposal with replacement, or Stanley generated and shipped 9.86 tons of undrained electrical spills of PCB oils during refill. Max concentration of PCBs (PAP-00017115-55).

Number of years changed to reflect a 1930 start date for PCBs.

transformers containing PCBs in 1993 (PAP-00018238).

SOIL SAMPLE 447A-MW01-01 COLLECTED FROM DEPTH OF 0.0-1.0 FT CONTAINS ONLY DETECTABLE RESULTS FOR DDx (4,4-DDE AND 4,4'-DDT) SUM = 0.117 mg/kg (PAP-00017131).

Number of years reflect a 1940 start date for DDx.

NONE REPORTED

DIOXIN Octa-CDD DETECTED IN SOIL SAMPLE 447A-0302-01 AT 0.0027 MG/KG.

Number of years reflect a 1940 start date for dioxin.

0.000001 kg per mg (Merck Index) 0.0006 KILOGRAMS DISCHARGED

SUMMARY FTMASS ESTIMATES:

493.88 kg Copper

7154.69 kg Lead

0.38 kg Mercury

0.71 kg PAHs (Benzo(a)pyrene Equivalent) 17.27 kg PAHs (Other)

2.19 kg PCBs 0.0182 kg DDx 0.0000 kg Dieldrin 0.0006 kg Dioxins/Furans

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

Stanley Black & Decker, Inc.

140 Chapel	St		Newark	NJ	07105				
Facility BS	CUF	CUF_Categor	ry		CI	JF_NOTES	COF	COF_NOTES	Facillty Adjusted BS
3.695E-5	0.0%	Historically Compliant or	tre 19 and	eatment system viola 98 (PAS-00085670). \	tions associated with Violations were for T numerous areas with	ed March 30, 2004, Stanley received wastewater its remediation system initiated on December 15, SS, TOC, TPH in effluent samples collected in 1999 stained soil. (PAP-00018703, PAP-00018761, PAP-P-00018831, 33).		-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	2.956E-5
								AP_ABS	2.956E-5

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

Stanley Black & Decker, Inc.

140 Chapel	St		Newark	NJ	07105				
Facility BS	CUF	CUF_Catego	ory		CI	JF_NOTES	COF	COF_NOTES	Facility Adjusted BS
4.369E-3	0.0%	Historically Compliant or	tro 19 ar	eatment system viola 998 (PAS-00085670).	tions associated with Violations were for T numerous areas with	ed March 30, 2004, Stanley received wastewater its remediation system initiated on December 15, SS, TOC, TPH in effluent samples collected in 1999 stained soil. (PAP-00018703, PAP-00018761, PAP-P-00018831, 33).		-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	3.495E-3
								AP_ABS	3.495E-3

Allocator's Determinations Regarding Legal Defenses Raised by Allocation Parties

STANLEY BLACK & DECKER

Stanley Black & Decker note that OCC is currently implementing the Remedial Design for OU2 ("RD"), which is projected by EPA to cost approximately \$165 million. OCC released 41 parties, including Stanley, from OCC's claim for these RD costs. Accordingly, any allocation of OU2 costs that includes OCC and Stanley (and the other parties to the release) must reflect OCC's release of this liability.

ALLOCATOR'S DETERMINATION – Though I have not had the opportunity to review the underlying settlement document and other potentially relevant facts associated with the release provided by OCC, assuming its validity, it is apparent that there is a high likelihood of success in any action against OCC to enforce the release. Given OCC's lack of participation in the allocations process, however, the Allocator does not believe that it is appropriate to account for the amount of any such release in the assignment of allocated shares. Rather, the Allocator notes the existence of the release and recommends that it be taken into account in determining the appropriate amount of any future settlement with EPA.

Case 2:22-cv-07326-MCA-LDW Document 289-17 Filed 01/31/24 Page 51 of 87 PageID: 7641

Allocation Facility Cmass Calculation

STWB Inc. **120 Lister Avenue** NJ 07105 Newark

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	С%	Transport									
Copper	100.00%	-	100.00%	-	0.00%	202.52	100.00%	-	0	1.018817E-2	0
Lead	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Mercury	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
HPAHs	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
LPAHs	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
PCBs	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
DDx	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Protocol Calculation

STWB Inc. **120 Lister Avenue** Newark 07105 NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	0	0	0
Lead	0.01	3,200,000.00	0	0	0
Mercury	0.95	42,000.00	0	0	0
HPAHs	0.05	240,000.00	0	0	0
LPAHs	0.01	170,000.00	0	0	0
PCBs	12.87	26,000.00	0	0	0
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

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Allocation Facility COC Base Scores - Alternative Calulcation

Inc.	120 Lister Avenue	Newark	NJ	07105	
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Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	0	0	0	0	0
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	0	0	0	0	0
Mercury	0.95	42,000.00	4,322.53	41,955.96	0	0	0	0	0
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	0	0	0	0	0
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	0	0	0	0	0
PCBs	12.87	26,000.00	20,066.54	25,795.56	0	0	0	0	0
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

STWB Inc. 120 Lister Avenue Newark NJ 07105

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Newark Bay	Bypass	0.00%	0.00%	Did not discharge waste into the Passaic river

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	Manufactuer of organic/inorganic pigments
	# hours/per day discharged	Phthalo dyes
	#days/week discharged	Transoxide use
	#weeks/yr discharged	Wastewater very limited COCs
1,000,000	calc gal/yr discharge	No information on permits, but assumes all went to sewer system.
		No Flowdate
	Yr Ops started	Assuming 1,000,000 gallons per year
	Yr Ops ceased	
29	calc #yrs facility operated	
2 (2)		
Copper (Cu)	n e m. n i	
	#yrs facility discharged	Use and storage of water soluble copper.
	calc mg/L COC discharged	trace amounts in wastewater discharge. Assuming to be 2mg/l
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Lead (Pb)	calc kg COC discharged	
	#yrs facility discharged	
25	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Mercury (Hg)	edicing coc discharged	
	#yrs facility discharged	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
HPAHs	<u> </u>	
	#yrs facility discharged	
	calc mg/L O&G	
10%	% O&G that is considered PAHs	
	% COC in O&G considered as PAHs	
-	calc mg/L HPAHs	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
LPAHs		
29	#yrs facility discharged	
	calc mg/L O&G	
10%	% O&G that is considered PAHs	
40%	% COC in O&G considered as PAHs	
-	calc mg/L LPAHs	
3.785		
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
PCBs		
21	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
3.785 0.000001	L per gallon (Merck Index) kg per mg (Merck Index)	
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0.000001 - DDX - 16 - 3.785 - 0.000001 - 1 - Dieldrin - 3.785 - 0.000001 - 1 - Dioxins/Furans - 29 - 3.785 - 0.000001 - 1 - Dioxin/Furan Precursor - 2,4-D - Dioxin/Furan Precursor - 2,4-D - Dioxin/Furan Precursor - 2,4-S-T - Dioxin/Furan Precursor - 2,4-S-T - Dioxin/Furan Precursor - 2,4-S-T - 1 - 1 - 3.785 - 0.00001 - 1 - 1 - 3.785 - 0.00001 - 1 - 3.785 - 0.00001 - 1 - 3.785 - 0.00001	L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) calc kg COC discharged L per gallon (Merck Index) calc kg COC discharged L per gallon (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) calc kg COC discharged L per gallon (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged L per gallon (Merck Index) calc kg COC discharged #yrs facility discharged #yrs	
0.000001 DDX 16	Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L OCC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) discharged #yrs facility discharged within Dieldrin Timeline calc mg/L OCC discharged Lper gallon (Merck Index) kg per mg (Merck Index)	
0.000001 DDX 16	L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged #yrs facility discharged within 2,4-S-T Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged #yrs facility discharged #yrs faci	
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0.000001 DDX 16	Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L OCC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L OCC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index)	
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0.000001 DDX 16	Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L OCC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L OCC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index)	

STWB Newark DMass formatted for report 1 ARR2813 POTW_PVSC

Discharge Calcs	Direct Discharge Information	COMMENTS/NOTES
	# hours/day discharged	Assume stormwater direct to Passaic River until 1971
	# days/week discharged	
4 720 020	# weeks/yr discharged # gals/yr directly discharged	
1,729,839	# gais/yr directly discharged	
4.08	ft; 30yr average annual precipitation per Rutgers information	
4.00	acres	
43,560	ft2 per acre	
	acres	
50%	Percent Precip to River	
	Yr Ops started	
	Yr Ops ceased	
14	calc #yrs facility operated	
Copper (Cu)		
	#yrs facility discharged	Historically stored 1000-43242 lbs of copper sulfate onsite. Took average amount of 22,121 lbs
-	calc mg/L COC discharged	assume that 1% gets into stormwater discharge direct to Passaic River
	L per gallon (Merck Index)	221.25 pounds in 1729839 gallons of stormwater per year = 15.37 mg/l
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Lead (Pb)		
14	#yrs facility discharged	
2.705	calc mg/L COC discharged	
3.785		
0.000001	kg per mg (Merck Index)	
Mercury (Hg)	calc kg COC discharged	
	#yrs facility discharged	
- 14	ayrs facility discharged calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
HPAHs		
	#yrs facility discharged	
<u>-</u> .	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
=	calc kg COC discharged	
LPAHs		
14	#yrs facility discharged	
	calc mg/L COC discharged	
3.785		
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
PCBs		
	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
DDx	n or forther dealers and other DD. The dealers	
- 15	#yrs facility discharged within DDx Timeline	
	calc mg/L COC discharged L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dieldrin		
	#yrs facility discharged within Dieldrin Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxins/Furans		
14	#yrs facility discharged	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
District Survey Browns Co. 5	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	Have facility discharged within 2 A D TimePre	
	#yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
5.00001	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T	,	
	#yrs facility discharged within 2,4,5-T Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP		
	#yrs facility discharged within 2,4,6-TCP Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
Summary DMassCOC for Direct Discharge:		
-	kg Copper	
-	kg Lead	
-	kg Mercury	
-	kg HPAHs	
	kg LPAHs	1
-		
-	kg PCBs	
-	kg PCBs kg DDx	
-	kg PCBs	

STWB Newark DMass formatted for report 3 ARR2814 Direct_SW_Passaic

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Allocation Facility Cmass Calculation

STWB Inc. 192 and 194 Bloomfield Avenue Bloomfield NJ 07003

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	C%	Transport									
Copper	100.00%	-	100.00%	-	12.41%	278.98	100.00%	-	34.62	1.018817E-2	0.35
Lead	100.00%	-	100.00%	-	12.41%	6.05	100.00%	-	0.75	1.018817E-2	0.01
Mercury	100.00%	-	100.00%	-	12.41%	-	100.00%	-	0	1.018817E-2	0
HPAHs	100.00%	-	100.00%	-	12.41%	39.47	100.00%	0.2	5.06	1.018817E-2	0.05
LPAHs	100.00%	-	100.00%	-	12.41%	26.31	100.00%	0.1	3.37	1.018817E-2	0.03
PCBs	100.00%	-	100.00%	-	12.41%	-	100.00%	-	0	1.018817E-2	0
DDx	100.00%	-	100.00%	-	12.41%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	12.41%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	12.41%	-	100.00%	-	0	1.018817E-2	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Protocol Calculation

STWB Inc. 192 and 194 Bloomfield Avenue Bloomfield NJ 07003

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	0.35	1.680E-7	1.159E-7
Lead	0.01	3,200,000.00	0.01	2.390E-9	2.390E-11
Mercury	0.95	42,000.00	0	0	0
HPAHs	0.05	240,000.00	0.05	2.147E-7	1.074E-8
LPAHs	0.01	170,000.00	0.03	2.021E-7	2.021E-9
PCBs	12.87	26,000.00	0	0	0
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Alternative Calulcation

STWB Inc.	192 and 194 Bloomfield Avenue	Bloomfield	NJ	07003	
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Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	1.250E-4	0.35	262.16	1.250E-4	8.625E-5
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	2.601E-6	0.01	8.32	2.601E-6	2.601E-8
Mercury	0.95	42,000.00	4,322.53	41,955.96	0	0	0	0	0
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	1.164E-6	0.05	0.23	1.164E-6	5.818E-8
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	1.119E-6	0.03	0.16	1.119E-6	1.119E-8
PCBs	12.87	26,000.00	20,066.54	25,795.56	0	0	0	0	0
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

STWB Inc. 192 and 194 Bloomfield Avenue Bloomfield NJ 07003

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	Limited to no information sewer discharges
	# hours/per day discharged #days/week discharged	Cleaning Produces and Disinfectant formulation and mixing Estimating based on Canning Gumm
	#weeks/yr discharged	Wastewater discharged to PVSC from 1931-1965, prior direct to Second River
1,175,000	calc gal/yr discharge	
	L	
	Yr Ops ceased Yr Ops ceased	
	calc #yrs facility operated	
	, , . ,	
Copper (Cu)		
	#yrs facility discharged	Based on Goodrich
	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Lead (Pb)		
0.04	#yrs facility discharged calc mg/L COC discharged	Based on Goodrich
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Mercury (Hg)	House Couldband Inches and	December Consists
- 54	#yrs facility discharged calc mg/L COC discharged	Based on Goodrich
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
HPAHs 34	#yrs facility discharged	Based on Canning Gumm
4.35	#yrs facility discharged calc mg/L O&G	pased on canning dunini
10%	% O&G that is considered PAHs	
	% PAHs considered as HPAHs	
0.26	calc mg/L HPAHs	<u> </u>
3.785 0.000001	L per gallon (Merck Index) kg per mg (Merck Index)	
	calc kg COC discharged	
LPAHs		
34		Based on Goodrich
	calc mg/L O&G	
	% O&G that is considered PAHs % PAHs considered as LPAHs	
0.17	calc mg/L LPAHs	
3.785	L per gallon (Merck Index)	
0.000001		
	calc kg COC discharged	
PCBs 35	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
- DDx	calc kg COC discharged	
	#yrs facility discharged within DDx Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
Dieldrin	Calc kg COC discharged	
	#yrs facility discharged within Dieldrin Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
Dioxins/Furans		
34	#yrs facility discharged	
-	calc mg/L COC discharged	
3.785 0.000001	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	<u></u>	
20	#yrs facility discharged within 2,4-D Timeline	
- 2 705	calc mg/L COC discharged	
3.785 0.000001	L per gallon (Merck Index) kg per mg (Merck Index)	
0.000001	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T		
21	#yrs facility discharged within 2,4,5-T Timeline	
- 2 705	calc mg/L COC discharged	<u> </u>
3.785	L per gallon (Merck Index) kg per mg (Merck Index)	_
0.000001	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP		
	#yrs facility discharged within 2,4,6-TCP Timeline	
- 2 70E	calc mg/L COC discharged	
3.785 0.000001	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
Summary DMassCOC for POTW:	la Cannor	
	kg Copper kg Lead	
- 0.03	kg Mercury	
39.47	kg HPAHs	
	kg LPAHs	
	kg PCBs	
-	kg DDx kg Dieldrin	
-	kg Dioxins/Furans	

STWB Bloomfield DMass formatted for report 1 ARR2819 POTW_PVSC

Discharge Calcs	Direct Discharge Information	COMMENTS/NOTES
-	# hours/day discharged	Limited to no information sewer discharges
	# days/week discharged # weeks/yr discharged	Cleaning Produces and Disinfectant formulation and mixing Estimating based on Canning Gumm
1.175.000	# gals/yr directly discharged	Wastewater discharged to PVSC from 1931-1965, prior direct to Second River
_,_13,000		
4.08	ft; 30yr average annual precipitation per Rutgers information	
	acres	
43,560	ft2 per acre	
50%	acres Percent Precip to River	
30/0	Terent reep to hive	
1925	Yr Ops started	
	Yr Ops ceased	
6	calc #yrs facility operated	
Copper (Cu)	n or forder dealers of	
	#yrs facility discharged calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Lead (Pb)		
	#yrs facility discharged	
	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
0.000001	calc kg COC discharged	
Mercury (Hg)	care ng coc assentiged	
	#yrs facility discharged	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
LIDAUC	calc kg COC discharged	
HPAHs 6	#yrs facility discharged	
	calc mg/L O&G discharged	
	% O&G that is considered PAHs	
60%	% PAHs considered as HPAHs	
	calc mg/L HPAHs	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
LPAHs	u facilit. disabassad	
	#yrs facility discharged calc mg/L O&G discharged	
	% O&G that is considered PAHs	
	% PAHs considered as LPAHs	
	calc mg/L LPAHs	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
PCBs	# facility disabases decide in DCDs Timedian	
	#yrs facility discharged within PCBs Timeline calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
DDx		
	#yrs facility discharged within DDx Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index) kg per mg (Merck Index)	
-	calc kg COC discharged	
Dieldrin		
-18	#yrs facility discharged within Dieldrin Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index) calc kg COC discharged	
Dioxins/Furans		
6	#yrs facility discharged	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	#yrs facility discharged within 2,4-D Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T	n . 6 . 9 . 4 . 4	
	#yrs facility discharged within 2,4,5-T Timeline	
	calc mg/L COC discharged L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP		
	#yrs facility discharged within 2,4,6-TCP Timeline	
	calc mg/L COC discharged	
	L per gallon (Merck Index)	
	ka ner ma (Merck Index)	1
0.000001	kg per mg (Merck Index)	
0.000001	kg per mg (Merck Index) calc kg COC discharged	
0.000001		
0.000001		
0.00001		
0.000001 - Summary DMassCOC for Direct Discharge:	calc kg COC discharged kg Copper kg Lead	
0.000001	calc kg COC discharged kg Copper kg Lead kg Mercury	
Summary DMassCOC for Direct Discharge:	kg Copper kg Lead kg Wercury kg HPAHS	
0.000001	calc kg COC discharged kg Copper kg Lead kg Mercury kg HPAHs kg IPAHs	
0.000001	calc kg COC discharged kg Copper kg Lead kg Mercury kg HPAHS kg LPAHS kg PCBS	
0.000001	kg COD discharged kg Copper kg Lead kg Mercury kg HPAHS kg LPAHS kg LPBS kg DDX	
0.000001	calc kg COC discharged kg Copper kg Lead kg Mercury kg HPAHS kg LPAHS kg PCBS	

STWB Bloomfield DMass formatted for report 3 ARR2820 Direct_SW_Passaic

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022) Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022) Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022) Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

STWB Inc.

120 Lister A	venue		Newark	NJ	07105				
Facility BS	CUF	CUF_Catego	ory		CI	JF_NOTES	COF	COF_NOTES	Facillty Adjusted BS
0 192 and 19 4	5.0% 4 Bloo r	Occasional Noncor	dis se ind in Ap Co	discharged into a catch basin within the site area, which reached the Lockwood Street storm sewer and the Passaic River (PAS-00002739). In February 1972, PVSC issued a notice of violation indicating that the sewer department took out a sample from the sewer line and found "chemical in the line." (PAS-00002741). Note: The specific "chemical in the line" was not identified. On April 27, 1976, a \$750 fine was imposed on TCI for violations of the Spill Prevention, Control, and Countermeasure (SPCC) regulations under Section 311 of the Federal Water Pollution Control Act (PAS-00002727). Note: No additional information was provided. No indication that COC involved				-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	0
Facility BS CUF CUF_Category				CUF_NOTES			COF	COF_NOTES	Facility Adjusted BS
1.287E-7 0.0% Historically Compliant or No Evidence No information on violations or sloppy practices was identified in the available file material.							-20.0%	-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	1.029E-7
								AP_ABS	1.029E-7

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022) Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

STWB Inc.

120 Lister A	Avenue		Newark	NJ	07105					
Facility BS	CUF	CUF_Catego	ry	CUF_NOTES			COF	COF_NOTES	Facility Adjusted BS	
0 192 and 19	5.0% 4 Blooi	Occasional Noncor	dis se ind in Ap Co	PVSC inspection in 1971 noted poor housekeeping at the site and green fluorecein dye discharged into a catch basin within the site area, which reached the Lockwood Street storm sewer and the Passaic River (PAS-00002739). In February 1972, PVSC issued a notice of violation indicating that the sewer department took out a sample from the sewer line and found "chemical in the line." (PAS-00002741). Note: The specific "chemical in the line" was not identified. On April 27, 1976, a \$750 fine was imposed on TCI for violations of the Spill Prevention, Control, and Countermeasure (SPCC) regulations under Section 311 of the Federal Water Pollution Control Act (PAS-00002727). Note: No additional information was provided. No indication that COC involved				-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	0	
Facility BS	CUF	CUF_Catego	ry	CUF_NOTES			COF	F COF_NOTES F		
8.635E-5 0.0% Historically Compliant or No Evidence No information on violations or sloppy practices was identified in the available file material								0% -20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities		

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Allocation Facility Cmass Calculation

Sun Chemical Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	C%	Transport									
Copper	100.00%	0.34	100.00%	-	0.00%	2,829.40	100.00%	-	0.34	1.018817E-2	0
Lead	100.00%	0.28	100.00%	-	0.00%	499.93	100.00%	-	0.28	1.018817E-2	0
Mercury	100.00%	0.01	100.00%	-	0.00%	1,296.67	100.00%	-	0.01	1.018817E-2	0
HPAHs	100.00%	0.06	100.00%	-	0.00%	54.83	100.00%	-	0.06	1.018817E-2	0
LPAHs	100.00%	0.05	100.00%	-	0.00%	143.59	100.00%	-	0.05	1.018817E-2	0
PCBs	100.00%	0.4	100.00%	-	0.00%	-	100.00%	-	0.4	1.018817E-2	0
DDx	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	0.00%	-	100.00%	-	0	1.018817E-2	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Protocol Calculation

Sun Chemical Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	Copper 0.69 2,100,000.00		0	1.650E-9	1.138E-9
Lead	0.01	3,200,000.00	0	8.915E-10	8.915E-12
Mercury	Mercury 0.95		0	2.426E-9	2.304E-9
HPAHs	0.05	240,000.00	0	2.547E-9	1.274E-10
LPAHs	0.01	170,000.00	0	2.997E-9	2.997E-11
PCBs	12.87	26,000.00	0	1.567E-7	2.017E-6
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Alternative Calulcation

Sun Chemical Corporation (Foundry Street Complex)

185 Foundry Street

Newark

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	1.228E-6	0	2.57	1.228E-6	8.471E-7
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	9.703E-7	0	3.1	9.703E-7	9.703E-9
Mercury	0.95	42,000.00	4,322.53	41,955.96	2.313E-6	0	0.1	2.313E-6	2.198E-6
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	1.380E-8	0	0	1.380E-8	6.902E-10
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	1.660E-8	0	0	1.660E-8	1.660E-10
PCBs	12.87	26,000.00	20,066.54	25,795.56	1.993E-5	0	0.51	1.993E-5	2.565E-4
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

Sun Chemical Corporation (Foundry Street Complex) 185 Foundry Street Newark NJ 07105

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	Newark Bay	Bypass	0.00%	0.00%	Did not discharge waste into the Passaic river

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	PVSC Permit No. 20200038 - discharge of process wastewater, sanitary and storm water
24	# hours/per day discharged	PVSC Permit No. 204-010-42 - discharge of manufacturing residuals treated onsite and discharged
	#days/week discharged	- limited information on 204-010-42
	#weeks/yr discharged	Main storm sewer to PVSC POTW
20,287,112	calc gal/yr discharge PAP00124262, PAP00123478, PAP00049181	Volume data from:
		- Permit Discharge Limits (2001-2006)
1986	Yr Ops started	- 1986-87 Industrial Pretreatment Program Annual Report
	Yr Ops ceased	- 1990 Document
17	calc #yrs facility operated	- Permit application Files and Permits from 1979-1996
Copper (Cu)		
17	#yrs facility discharged	Data from:
	calc mg/L COC discharged PAP00124262, PAP00049181	1990 Permit Sampling Results = 2.75 mg/l
3.785	L per gallon (Merck Index)	1979 & 1990 Sampling Reults = .16 mg/l and 2.74 mg/l
0.000001	kg per mg (Merck Index)	2001-2006 Discharge Limits = 3.02 mg/l
2,829.40	calc kg COC discharged	
Lead (Pb)		
17	#yrs facility discharged	Data from:
0.383	calc mg/L COC discharged PAP00124262, PAP00049181	1988, 1990 & 1992 Permit Sampling Results = .084219mg/l, ND, 1.246mg/l
	L per gallon (Merck Index)	1979-1996 Sampling Reults = .9, .084, .188, .219, <.05, .0683 mg/l
	kg per mg (Merck Index)	2001-2006 Discharge Limits = .54 mg/l
	calc kg COC discharged	
Mercury (Hg)		
	#yrs facility discharged	1979, 1990 Sampling Results = .16, 2.74 mg/l
	calc mg/L COC discharged PAP00124262, PAP00049181	2001-2006 Discharge Limits = .080 mg/l
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
HPAHs		
17	#yrs facility discharged	HPAHs from 2001-2006 discharge limits:
	calc mg/L O&G PAP00124262	- Flouranthene 6.75 g/day
	% O&G that is considered PAHs	- Pyrene 6.14 g/day
60%		
0.042		
3.785	L per gallon (Merck Index)	
0.000001		
54.83	calc kg COC discharged	
LPAHs		Lavi C. Addi Addi H. J. H. H.
17	#yrs facility discharged	LPAHs from 2001-2006 discharge limits
	calc mg/L O&G PAP00124262	- Acenaphthene = 6.8 g/day
	% O&G that is considered PAHs	- Anthracene = 6.83 g/day
40%	% COC in O&G considered as PAHs	- Flourene = 6.83 g/day
	calc mg/L LPAHs	- Naphthalene = 6.83 g/day
	L per gallon (Merck Index)	- Phenanthrene = 6.83 g/day
0.000001		
	calc kg COC discharged	
PCBs		
-8	#yrs facility discharged within PCBs Timeline	
2.705	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
DDx	Book for the other and other BBo Though	
	#yrs facility discharged within DDx Timeline	
- 2.705	calc mg/L COC discharged	
3.785 0.000001	L per gallon (Merck Index)	
-		
Dieldrin	calc kg COC discharged	
	Hurs facility discharged within Dialdrin Timeline	
<u> </u>	#yrs facility discharged within Dieldrin Timeline	
-	calc mg/L COC discharged	
3.785	calc mg/L COC discharged L per gallon (Merck Index)	
3.785 0.000001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
3.785 0.000001	calc mg/L COC discharged L per gallon (Merck Index)	
3.785 0.000001 Dioxins/Furans	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
3.785 0.000001 Dioxins/Furans	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged	
- 3.785 0.000001 - Dioxins/Furans - 17	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged	
- 3.785 0.00001 - Dioxins/Furans 17 - 3.785	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index)	
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- 3.785 0.000001 - Dioxins/Furans - 17 - 3.785 0.000001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged calc mg/L COC discharged L per gallon (Merck Index)	
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- 3.785 - 0.00001 - Dioxins/Furans - 17 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 18 - 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 0 - 3.785	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged ale mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) ##yrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged L per gallon (Merck Index)	
- 3.785 - 0.00001 - Dioxins/Furans - 17 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 18 - 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 0 - 3.785	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged L per gallon (Merck Index) calc kg COC discharged #tyrs facility discharged #tyrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged	
- 3.785 - 0.00001 - Dioxins/Furans - 17 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 18 - 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 0 - 3.785	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged ale mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) ##yrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged L per gallon (Merck Index)	
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- 3.785 - 0.00001 - Dioxins/Furans - 17 - 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4-D - 18 - 3.785 - 0.00001 - Dioxin/Furan Precursor - 2,4,5-T - 0 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged calc mg/L COC discharged ##yrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged ##yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged ##yrs facility discharged L per gallon (Merck Index) calc kg COC discharged ##yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged ##yrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index)	
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- 3.785 - 0.000001 - Dioxins/Furans - 17 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4-D - 18 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 0 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 10 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP - 10	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged all mg/L COC discharged #yrs facility discharged L per gallon (Merck Index) kg per mg (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged #yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged #yrs facility	
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Sun Chemical DMass formatted for report 1 ARR2827 POTW_PVSC

ASSUMPTIONS, REFERENCES COMMENTS/NOTES Discharge Calcs Direct Discharge Information Long term average annual precipitation includes floods and hurricane events Data from Rutgers University 4.08333333 FEET/YEAR AVERAGE PRECIPITATION occurring over time. 0.4 ACRES - TOTAL SITE AREA (acres) 0.08 ACRES - AFFECTED AREA From the facility map on PAS-00044655, it appears there were buildings and other sturctures. Only part of the site was shown as unpaved. For this calculation a conservative estimate of 20% of the total site area was assumed to be unpaved. 4,046.86 METERS²/ACRE 324 METERS² (AFFECTED AREA) 0.0001 METERS/YEAR (ERODED SOIL THICKNESS) For this estimate, used a surface soil erosion rate of 0.1 mm/year, or 0.004 inches/year. 0.03 METERS³/YEAR (ERODED SOIL VOLUME) VOLUME/YEAR DISCHARGED TO PASSAIC RIVER 1986 Year site operations began Sequa Corporation changed its name to Sun Chemical Corporation, December 31, 1986 (FDR Page 1) 1993 Year of site-wide soil remeditation (PAP-00120463) Operations ended on December 31, 2003 but equipment cleaning and dismantling activities were still being conducted as part of the cessation of operations. The 1992-1993 site-wide remediation included removal of the top two feet of soil from accessible areas of the site and placement of a concrete/asphalt cap over the entire site (PAP-00120487) 7 NUMBER YEARS DISCHARGE ⁰ METERS³ (TOTAL SOIL VOLUME DISCHARGED OVER TIME) 1962.5 KG/M3 SOIL DENSITY Fill reported as 0.504.5 feet of glass, bricks, cement, with brown-black silty/sandy clay and some gravel (PAS-00044960 through PAS-00044964) soil boring logs. Bulk density range 1442 KG/M3 to 2483 KG/M3, so use average. (http://structx.com/Soil_Properties_002.html) 445 KILOGRAMS (TOTAL SOIL DISCHARGED OVER TIME) The facility site is not located on regional Historic Fill (FDR page 8) Copper (Cu) 7 YEARS DISCHARGED 762 MG/KG (MAX CONCENTRATION) Copper was found at a maximum concentration in boring number B-6 (depth of 18-24 inches) in 1988 (PAS-00044905 and FDR page 9) 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED 7 YEARS DISCHARGED 633 MG/KG (AVERAGE CONCENTRATION) Lead was found at a maximum concentration in boring number B-6 (depth of 18-24 inches) in 1988 (PAS-00044905) 0.000001 kg per mg (Merck Index) KILOGRAMS DISCHARGED Mercury (Hg) 7 YEARS DISCHARGED 28 MG/KG (MAX CONCENTRATION) Mercury was found at a maximum concentration in boring number B-2 (depth of 0-6 inches) in 1988 (PAS-00044905)

0.000001 kg per mg (Merck Index)
0.01 KILOGRAMS DISCHARGED

PAHs (listed in Benzo(a)pyrene Tota Equivalent conversion table) http 7 YEARS DISCHARGED 134.12 MG/KG (TOTAL PAH MAX CONCENTRATION) calc 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED Dat PAHs (others detected) 7 YEARS DISCHARGED 116 MG/KG (TOTAL PAH MAX CONCENTRATION) 0.000001 kg per mg (Merck Index) calcı 0 KILOGRAMS DISCHARGED 7 YEARS DISCHARGED 910 MG/KG (MAX OF REPORTED CONCENTRATIONS) The highest concentration of PCBs was found in sample 3-107 (depth 0-6 inches) (PAS-00045069) Historic fill was not a consideration for PCB concentrations for the purpose of this calculation. 0.000001 kg per mg (Merck Index) 0 KILOGRAMS DISCHARGED SUMMARY CMASS ESTIMATES: 0.34 kg Copper 0.28 kg Lead 0.01 kg Mercury 0.06 kg PAHs (Benzo(a)pyrene Equivalent) 0.05 kg PAHs (Other) 0.40 kg PCBs

1.15 MASS (KG) DISCHARGED FROM SURFACE SOIL

Total concentration of PAH compounds for Benzo(a)pyrene Equivalent https://floridadep.gov/waste/petroleum-restoration/documents/benzo-pyrene-equivalents-conversion-table-one-sample.	During January 1993, the area with PAH contamination was excavated down to two feet to the perimeter of the site and covered with clean fill (FDR page 16)	Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
	Maximum concentrations listed in review of past	Benzo(a)pyrene	74.000	1.0	74.0000
Historic fill was not a consideration for PAH concentrations for the purpose of this calculation.		Benzo(a)anthracene Benzo(b)fluoranthene	110.000 240.000	0.1 0.1	11.0000 24.0000
		Benzo(k)fluoranthene	240.000	0.01	2.4000
Data below the Benzo(a)pyrene Equivalent Table	Benzo(b)fluoranthene and Benzo(k)fluoranthene	Chrysene Dibenz(a,h)anthracene	120.000	1.0	0.1200 17.0000
Sample B-12/1 depth 0-6 inches. (PAP-00381910-12)	were coeluted	Indeno(1,2,3-cd)pyrene	56.000	0.1	5.6000
Historic fill was not a consideration for PAH concentrations for the purpose of this calculation.		DE Residential = 0.1 mg/kg; DE	Industrial = 0.7 mg/kg	3	

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg	
Total Benzo(a)pyrene Equiv	alents = 134.1
P 12/1 donth 0.6 inches (PAR 00281010 12)	

B-12/1 depth 0-6 inches. (PAP-00381910-12)	
Anthracene	12	
Acenaphthene	0	
Acenaphthylene	20	
Fluorene	0	
Naphthalene	47	
Phenanthrene	37	
2-Methylnaphthalene	0	
SUM	116	
-	·	

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

Sun Chemical Corporation (Foundry Street Complex)

185 Foundr	y Street		Newark	NJ	07105				
Facility BS	CUF	CUF_Catego	ry		C	UF_NOTES	COF	COF_NOTES	Facillty Adjusted BS
1.516E-6	5.0%	Occasional Noncor	sai sui an Ch Ari wh of Ac wa ho	mple collected on Ap rvey found the groun d it was stated that it emical Company (PA kansas Chemical and nich also existed on S the driveway contair cording to a February as conducted at Sun C usekeeping practices	ril 21, 1992 (PAP-0t d, building surfaces t was believed these P-00031574). In 199 Sun Chemical Corpor un Chemical Corpor ned standing water v y 13, 1991 Memoral Chemical Corporation " at the site. The sit	d a lead violation for Sun Chemical Corporation for a 0374626; PAS-00111661; PAS-00128931). A 1987 and drums stored near the plant were stained purple, a stains were from pigments manufactured by Sun 90, it was reported that the driveway located between pration was stained with a magenta colored substance, ation's site. A strip like drain running down the center with a noticeable sheen on it (PAP-00031576-77). Indum, on November 26, 1990, a RCRA investigation in to investigate "alleged dumping and sloppy e tour confirmed the discoloration of the surrounding 1208 (PAS-00044985; PAS-00111388).	-20.0%	-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	1.288E-6
								AP_AB\$	1.288E-6

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

Sun Chemical Corporation (Foundry Street Complex)

185 Foundr	y Street		Newark	NJ	07105				
Facility BS	CUF	CUF_Catego	ry		CUF_NOTES		COF	COF_NOTES	Facility Adjusted BS
1.947E-4	5.0%	Occasional Noncom	, p.i.d.i.de	sample collected or survey found the gr and it was stated th Chemical Company Arkansas Chemical which also existed co of the driveway con According to a Febr was conducted at S housekeeping pract	n April 21, 1992 (PAP-00 round, building surfaces nat it was believed these (PAP-00031574). In 199 and Sun Chemical Corporation Sun Chemical Corporationed standing water vituary 13, 1991 Memoran un Chemical Corporations at the site. The site	a lead violation for Sun Chemical Corporation for a 374626; PAS-00111661; PAS-00128931). A 1987 and drums stored near the plant were stained purple, stains were from pigments manufactured by Sun 0, it was reported that the driveway located between ration was stained with a magenta colored substance, ation's site. A strip like drain running down the center vith a noticeable sheen on it (PAP-00031576-77). dum, on November 26, 1990, a RCRA investigation in to investigate "alleged dumping and sloppy et our confirmed the discoloration of the surrounding L208 (PAS-00044985; PAS-00111388).		-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	1.655E-4
								AP_ABS	1.655E-4

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Allocation Facility Cmass Calculation

Tate & Lyle Ingredients Americas LLC

100 3rd Avenue

Kearny

NJ

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
	C%	Transport	400.000/		4.240/	6.24	400.000/	24.7	24.0	4.0400475.0	0.22
Copper	100.00%	-	100.00%	-	1.21%	6.24	100.00%	31.7	31.8	1.018817E-2	0.32
Lead	100.00%	-	100.00%	-	1.21%	772.14	100.00%	3.2	12.53	1.018817E-2	0.13
Mercury	100.00%	-	100.00%	-	1.21%	-	100.00%	0.8	0.85	1.018817E-2	0.01
HPAHs	100.00%	-	100.00%	-	1.21%	26.06	100.00%	-	0.32	1.018817E-2	0
LPAHs	100.00%	-	100.00%	-	1.21%	17.37	100.00%	-	0.21	1.018817E-2	0
PCBs	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
DDx	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0

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Allocation Facility COC Base Scores - Protocol Calculation

Tate & Lyle Ingredients Americas LLC

100 3rd Avenue

Kearny

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	0.32	1.543E-7	1.064E-7
Lead	0.01	3,200,000.00	0.13	3.990E-8	3.990E-10
Mercury	0.95	42,000.00	0.01	2.052E-7	1.949E-7
HPAHs	0.05	240,000.00	0	1.341E-8	6.704E-10
LPAHs	0.01	170,000.00	0	1.262E-8	1.262E-10
PCBs	12.87	26,000.00	0	0	0
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Allocation Facility COC Base Scores - Alternative Calulcation

Tate & Lyle Ingredients Americas LLC 100 3rd Avenue 07032 Kearny NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	1.148E-4	0.32	240.78	1.148E-4	7.922E-5
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	4.342E-5	0.13	138.82	4.342E-5	4.342E-7
Mercury	0.95	42,000.00	4,322.53	41,955.96	1.957E-4	0.01	8.21	1.957E-4	1.859E-4
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	7.267E-8	0	0.01	7.267E-8	3.633E-9
LPAHs	0.01	170,000.00	3,012,835.14	139,304.72	6.989E-8	0	0.01	6.989E-8	6.989E-10
PCBs	12.87	26,000.00	20,066.54	25,795.56	0	0	0	0	0
DDx	1.37	27,000.00	2,516.93	26,974.36	0	0	0	0	0
Dieldrin	0.13	390.00	1.27	389.99	0	0	0	0	0
Dioxins_Furans	83.92	38.00	3,729.82	0.00	0	0	0	0	0

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

Tate & Lyle Ingredients Americas LLC 100 3rd Avenue Kearny NJ 07032

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	lvy	CSO	1.83%	66.23%	

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
	gal discharged per day/week/month	1971 Waste Effluent Survey = 500000 gallon to sanitary
	# hours/per day discharged	1974 Waste Effluent Survey = 500000 gallon to sanitary
	#days/week discharged	1977 permit 2500 gpd to PVSC
	#weeks/yr discharged	
637,500	calc gal/yr discharge PAS00108802, 65 (PAP-00724090)	
	Yr Ops started	
	Yr Ops ceased	
10	calc #yrs facility operated	
Copper (Cu)		
	#yrs facility discharged	1972 sampling data
0.26	calc mg/L COC discharged PAS00108864-68	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
	calc kg COC discharged	
Lead (Pb)		
	#yrs facility discharged	
32.00		1972 sampling data
3.785		
	kg per mg (Merck Index)	
	calc kg COC discharged	
Mercury (Hg)		
10	#yrs facility discharged	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
HPAHs		
	#yrs facility discharged	
18.00	calc mg/L O&G PAS00108864-68	1972 sampling data
10%		
	% PAHs considered as HPAHs	
1	calc mg/L HPAHs	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
LPAHs		
10		
	calc mg/L O&G PAS00108864-68	1972 sampling data
	% O&G that is considered PAHs	
40%	% PAHs considered as LPAHs	
1	calc mg/L LPAHs	
3.785		
	kg per mg (Merck Index)	
	calc kg COC discharged	
PCBs		
10	#yrs facility discharged within PCBs Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
3.785 0.000001	kg per mg (Merck Index)	
	kg per mg (Merck Index)	
0.000001 - DDx	kg per mg (Merck Index)	
0.000001 DDx 5	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged	
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0.000001 DDX 5	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility disch	
0.000001 - DDx - S - 3.785 - 0.000001 - Dieldrin - 11 - 3.785 - 0.000001 - Dioxins/Furans - 10 - 3.785 - 0.000001 - 1 - Dioxins/Furan Precursor - 2,4-D - 11 - 3.785 - 0.000001 - 1 - Dioxin/Furan Precursor - 2,4-D - 11 - 3.785 - 0.000001 - 1 - Dioxin/Furan Precursor - 2,4,5-T - 11 - 3.785 - 0.000001 - Dioxin/Furan Precursor - 2,4,5-T - 15 - 17 - 17 - 18 - 18 - 18 - 18 - 18 - 18 - 18 - 18	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg LpAHs kg Mercury kg HPAHs kg LPAHs kg LPAHs kg PCBs	
0.000001 DDX 5	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,5-T Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged #yrs facility disch	
0.000001 DDX 5	kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within DDx Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within Dieldrin Timeline calc mg/L COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged #yrs facility discharged calc kg COC discharged Lper gallon (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged Lper gallon (Merck Index) kg per mg (Merck Index) kg LpAHs kg Mercury kg HPAHs kg LPAHs kg LPAHs kg PCBs	

Tate & Lyle 3rd Ave DMass formatted for report 1 ARR2836 POTW_PVSC

Discharge Calcs	Direct Discharge Information	COMMENTS/NOTES
	# hours/day discharged	1971 Waste Effluent Survey = 11075000
 	# days/week discharged	1974 Waste Effluent Survey = 44800000
27 027 500	# weeks/yr discharged # gals/yr directly discharged	
27,937,500	# gars/yr un eculy discharged	
4 NR	ft; 30yr average annual precipitation per Rutgers information	
4.08	acres	
43,560	ft2 per acre	
·	acres	
50%	Percent Precip to River	
	Yr Ops started	
	Yr Ops ceased	
10	calc #yrs facility operated	
Connex (Cu)		
Copper (Cu)	#yrs facility discharged	
	calc mg/L COC discharged PAS00108802	1971 Waste Effluent Survey
	L per gallon (Merck Index)	,
	kg per mg (Merck Index)	
	calc kg COC discharged	
Lead (Pb)		
	#yrs facility discharged	
	calc mg/L COC discharged PAS00108802	1971 Waste Effluent Survey
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Mercury (Hg)	#yrs facility discharged	
	calc mg/L COC discharged PAS00108802	1971 Waste Effluent Survey
	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
0.85	calc kg COC discharged	
HPAHs		
	#yrs facility discharged	
-	calc mg/L COC discharged	
	kg per mg (Merck Index)	
- LPAHs	calc kg COC discharged	
	#yrs facility discharged	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
PCBs		
10	#yrs facility discharged within PCBs Timeline	
=	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
DDx	calc kg COC discharged	
	#yrs facility discharged within DDx Timeline	
	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dieldrin		
11	#yrs facility discharged within Dieldrin Timeline	
2 705	calc mg/L COC discharged L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxins/Furans	<u></u>	
	#yrs facility discharged	
	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	there facility discharged within 2.4 D Timeline	
11	#yrs facility discharged within 2,4-D Timeline calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T		
	#yrs facility discharged within 2,4,5-T Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Diovin/Euran Procureer 2.4.6 TCD	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,6-TCP	#yrs facility discharged within 2,4,6-TCP Timeline	
. *	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
	kg per mg (Merck Index)	
-	calc kg COC discharged	
Summary DMassCOC for Direct Discharge:		
	kg Copper	
	kg Lead	
	kg Mercury	
-	kg HPAHs kg LPAHs	
-	kg PCBs	
l		l
-	kg DDX	
- -	kg DDx kg Dieldrin	

Tate & Lyle 3rd Ave DMass formatted for report 3 ARR2837 Direct_SW_Passaic

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FINAL 12/28/2020

- kg Dioxins/Furans

Tate & Lyle 3rd Ave DMass formatted for report 4 ARR2838 Direct_SW_Passaic

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Allocation Facility Cmass Calculation

Tate & Lyle Ingredients Americas LLC

320 Schuyler Avenue

Kearny

NJ

Constituent Of Concern (COC)	Overland, Fate & Transport	Dmass Overland, Fate &	PrePVSC C%	Dmass PrePVSC	PVSC C%	Dmass PVSC	Direct Discharge C%	Dmass Direct Discharge	COC Total Pathway Cmass	COC A%	COC Historic CMass
Copper	C% 100.00%	Transport -	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
Lead	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
Mercury	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
HPAHs	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
LPAHs	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
PCBs	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
DDx	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
Dieldrin	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0
Dioxins_Furans	100.00%	-	100.00%	-	1.21%	-	100.00%	-	0	1.018817E-2	0

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Allocation Facility COC Base Scores - Protocol Calculation

Tate & Lyle Ingredients Americas LLC

320 Schuyler Avenue

Kearny

NJ

Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	COC Historic CMass	COC Relative Contribution	COC Base Score
Copper	0.69	2,100,000.00	0	0	0
Lead	0.01	3,200,000.00	0	0	0
Mercury	0.95	42,000.00	0	0	0
HPAHs	0.05	240,000.00	0	0	0
LPAHs	0.01	170,000.00	0	0	0
PCBs	12.87	26,000.00	0	0	0
DDx	1.37	27,000.00	0	0	0
Dieldrin	0.13	390.00	0	0	0
Dioxins_Furans	83.92	38.00	0	0	0

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Allocation Facility COC Base Scores - Alternative Calulcation

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170,000.00

26,000.00

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390.00

38.00

3,012,835.14

20,066.54

2,516.93

1.27

3,729.82

139,304.72

25,795.56

26,974.36

389.99

0.00

0.01

12.87

1.37

0.13

83.92

LPAHs

PCBs

DDx

Dieldrin

Dioxins Furans

ate & Lyle Ingre	dients Am	ericas LLC				320 Schuyler Avenue			Kearny	NJ	07032
Constituent Of Concern (COC)	Relative Risk Number (RRN)	Total Mass (Tmass)	Total Cmass (TCmass)	Total OS COC ACmass	COC %	COC Historic CMass	Facility OS COC Cmass	COC Relative Responsibility	COC Base Score		
Copper	0.69	2,100,000.00	276,960.25	2,097,178.28	0	0	0	0	0		
Lead	0.01	3,200,000.00	288,577.67	3,197,059.92	0	0	0	0	0		
Mercury	0.95	42,000.00	4,322.53	41,955.96	0	0	0	0	0		
HPAHs	0.05	240,000.00	4,346,388.50	195,718.24	0	0	0	0	0		

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For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

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Facility Bypass Information

Tate & Lyle Ingredients Americas LLC 320 Schuyler Avenue Kearny NJ 07032

Item	Bypass Name	Bypass Type	Time %	Flow %	Bypass Notes
1	lvy	CSO	1.83%	66.23%	

Discharge Calcs	POTW Discharge Information	COMMENTS/NOTES
2,000	gal discharged per day	Administrative/Sales Office Building from 1968-1976
	# hours/per day discharged	No manufacturing performed.
6		Only discharge is sanitary to the PVSC
	#weeks/yr discharged calc gal/yr discharge	No evidence or expectation of any COC discharges from facility
024,000	tait galfyl uistriaige	
1968	Yr Ops started	
	Yr Ops ceased	
8	calc #yrs facility operated	
Copper (Cu)		
	#yrs facility discharged	
-	calc mg/L COC discharged	
3.785 0.000001	L per gallon (Merck Index)	
0.00001	kg per mg (Merck Index) calc kg COC discharged	
Lead (Pb)	calc kg coc discharged	
	#yrs facility discharged	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
Mercury (Hg)		
	#yrs facility discharged	
- 2.705	calc mg/L COC discharged	
3.785 0.000001	L per gallon (Merck Index) kg per mg (Merck Index)	
0.00001	calc kg COC discharged	
HPAHs	,	
	#yrs facility discharged	
-	calc mg/L O&G	
10%		
	% COC in O&G considered as PAHs	
- 2.705	calc mg/L HPAHs	
3.785	L per gallon (Merck Index)	
0.00001	kg per mg (Merck Index) calc kg COC discharged	
LPAHs -	core no core distribilised	
	#yrs facility discharged	
-	calc mg/L O&G	
10%	% O&G that is considered PAHs	
50%	% COC in O&G considered as PAHs	
-	calc mg/L LPAHs	
3.785		
	kg per mg (Merck Index)	
ncn-	calc kg COC discharged	
PCBs	#yrs facility discharged within PCBs Timeline	
	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
DDx		
	#yrs facility discharged within DDx Timeline	
-	calc mg/L COC discharged	
	L per gallon (Merck Index)	
0.00001	kg per mg (Merck Index) calc kg COC discharged	
Dieldrin	calc kg coc discharged	
	#yrs facility discharged within Dieldrin Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
-	calc kg COC discharged	
Dioxins/Furans	Home Facilities all sub-consider	
8	#yrs facility discharged	
3.785	calc mg/L COC discharged L per gallon (Merck Index)	
0.000001		
-	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4-D	,	
	#yrs facility discharged within 2,4-D Timeline	
-	calc mg/L COC discharged	
3.785	L per gallon (Merck Index)	
0.000001	kg per mg (Merck Index)	
Planta France Parameter 2.45 T	calc kg COC discharged	
Dioxin/Furan Precursor - 2,4,5-T	Histor facility, discharged within 2 A F T Through	
•	#yrs facility discharged within 2,4,5-T Timeline	
		l l
1	calc mg/L COC discharged	
3.785	calc mg/L COC discharged L per gallon (Merck Index)	
3.785	calc mg/L COC discharged	
3.785 0.000001 Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
3.785 0.000001 Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline	
- 3.785 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged	
- 3.785 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index)	
	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
- 3.785 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index)	
	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
3.785 0.00001 Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index)	
3.785 0.00001 Dioxin/Furan Precursor - 2,4,6-TCP 8 3.785 0.000001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #wrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
3.785 0.00001 Dioxin/Furan Precursor - 2,4,6-TCP	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
3.785 0.00001 Dioxin/Furan Precursor - 2,4,6-TCP 8 - 3.785 0.000001 - Summary DMassCOC for POTW:	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged kg COC discharged	
3.785 0.000001 - Dioxin/Furan Precursor - 2,4,6-TCP 8 - 3.785 0.000001 - Summary DMassCOC for POTW:	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
3.785 0.00001 Dioxin/Furan Precursor - 2,4,6-TCP 8 3.785 0.000001 - Summary DMassCOC for POTW:	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged kg Copper kg Lead kg Mercury	
- 3.785 0.00001 - Dioxin/Furan Precursor - 2,4,6-TCP - 8 3.785 0.000001	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged	
	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #yrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged kg COC discharged kg COPper kg Lead kg Mercury kg HPAHS kg LPAHS kg PCBs kg PCBs kg DDx	
3.785 0.00001 Dioxin/Furan Precursor - 2,4,6-TCP 8 3.785 0.000001 - Summary DMassCOC for POTW:	calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged #tyrs facility discharged within 2,4,6-TCP Timeline calc mg/L COC discharged L per gallon (Merck Index) kg per mg (Merck Index) calc kg COC discharged kg COpper kg Lead kg Mercury kg HPAHS kg HPAHS kg LeAHS kg PCBS	

Tate & Lyle Schuyler DMass formatted for report 1 ARR2843 POTW_PVSC

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)

Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores

Tate & Lyle Ingredients Americas LLC

100 3rd Av	enue		Kearny	NJ	07032				
Facility BS	CUF	CUF_Catego	ry		С	UF_NOTES	COF	COF_NOTES	Facility Adjusted BS
3.026E-7	0.0%	Historically Compliant or	No Evidence	No information on vi	-20.0% -20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities				
320 Schuyler Avenue Kearny				NJ	07032				
Facility BS	CUF	CUF_Categor	ry	CUF_NOTES				COF_NOTES	Facillty Adjusted BS
0	0.0%	Historically Compliant or No Evidence No information on violations or sloppy practices was identified in the available file material.						-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own	0

activities

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AP_ABS

For Public Disclosure by Consent of the Participating Allocation Parties and EPA (Fall 2022)
Facility Base Scores, Culpability Factor, Cooperation Factor and Adjusted Base Scores Allocation Calculation

Tate & Lyle Ingredients Americas LLC

100 3rd Avenue Kearny				NJ	07032				
Facility BS	CUF	CUF_Catego	pry		С	JF_NOTES	COF	COF_NOTES	Facility Adjusted BS
2.656E-4	0.0%				cices was identified in the available file material.		-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own activities	2.125E-4	
320 Schuylo	er Avei	nue	Kearny	NJ	07032				
Facility BS	CUF	CUF_Category CUF_NOTES						COF_NOTES	Facility
									Adjusted BS
0	0.0%	Historically Compliant or No Evidence No information on violations or sloppy practices was identified in the available file material.						-20% CPG/SPG member - Continuous provision of funding and participation in PRP Group(s) actions to cooperate with governmental/regulatory entities to address environmental or public harm created by own	0

2.125E-4

AP_ABS

activities